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DIPHTHERITIC CONJUNCTIVITIS.

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There is perhaps no disease to which the attention of the profession and of the public has been directed for the past few years so frequently as to diphtheria.

Especial interest has been awakened in this country from the fact that so long a period had elapsed since the last appearance of the disease, that physicians were almost wholly without experience in its treatment at the commencement of the present epidemic; this interest has been increased by the fatality of the disease which has too often baffled the most scientific skill and carried sadness and grief into thousands of families. The disease is remarkable, we believe, not only for the duration of the epidemic, but also for the length of time which may elapse from one epidemic to another.

The medical journals throughout the country have published numerous articles upon the subject, and have reported cases illustrating the peculiarities of the affection; but we are not aware that much has been written in regard to diphtheritic inflammation of the conjunctiva. This is probably to be ex-

plained by the fact that this disease of the eye is very rare in this country. We believe the same is true of diphtheria affecting other portions of the mucous membrane than those of the mouth and throat, leech bites and surfaces of the body denuded by burns and blisters, as reported not unfrequently by European observers. In an aggregate number of more than ten thousand cases of diseases of the eye, tabulated in several annual Reports of the New York Eye Infirmary, there is not a case of diphtheritic conjunctivitis. In eleven hundred cases of ophthalmic disease which we have treated in Chicago, we have met with true diphtheritic membrane in only one instance. Upon enquiry also among our medical friends with extensive practice in Chicago and different portions of the State we have heard of only one patient affected with this disease. We have had an opportunity of examining but few of our Medical Journals, and are consequently ignorant of cases which may have been reported in various parts of our country. Prof. Clark, in his lectures on Diphtheria in the American Medical Times, vol. ii. 1861, alludes to several cases which fell under the observation of Dr. Rives at the Children's Hospital on Randall's Island. He also published in one of these lectures the history of one case observed by Dr. H. D. Noyes of the New York Eye Infirmary. As the disease is seldom mentioned in the London ophthalmic hospital Reports, it may be inferred that it is also rare in England. On the Continent of Europe, however, the disease is quite common.

The three most reliable papers upon Diphtheritic conjunctivitis with which we are acquainted are one by V. Graefe, published in the first volume of the archiv fur Opthalmologie, one by Jacobson in the sixth volume of the same work, and another by Dr. Lewinski in the Annalles d'omlistique 1861.

The article by V. Graefe is said to be the most scientific and comprehensive that can be found in any language. It contains a thorough investigation of nearly every thing pertaining to the disease, including an accurate description of the peculiarities which distinguish it from other forms of acute

inflammation of the conjunctiva, in reference to diagnosis and treatment. The article has been translated and published in the London Medical Review. We would recommend these papers to the consideration of all those interested in this subject.

A typical case of diphtheritic conjunctivitis has certain peculiarities, which characterize it from muco-purulent (blenorrhœa) inflammation. "In the latter, the conjunctiva is spongy, œdematous, filled with a fluid exudation, while in diphtheria it is unyielding and filled with a firm fibrinous exudation; in the one the lid will be found soft, puffy and easily turned, but in the latter stiff and less movable. The conjunctiva in Blenorrhœa is supplied with an unnatural amount of blood and the circulation is free in the greater part of its vessels. The diphtheritic conjunctiva on the other hand is in a great measure deprived of its supply of blood in consequence of the great firmness of the exudation, causing an undue pressure upon the vessels."

The discharge from the mucous membrane in Blenorrhœa is a homogeneous pus, while in Diphtheria it is thin, of a dirty gray color and more irritating or even corrosive in character.

The heat is much higher in the diphtheritic than in the other form of inflammation. In the latter disease, wet (cold) compresses require changing every two or three minutes; in the former they become much more rapidly heated, requiring change every twenty-five or thirty seconds.

The pain is much greater in the former than the latter.

The swelling of the conjunctiva, independent of the submucous membrane is greater in the diphtheritic than in the purulent inflammation, as may be seen by examining a section of the conjunctiva in each disease after scarification.

The following is the usual course of the disease: An eye, previously to all appearance, healthy, or more frequently an eye, which has been affected with inflammation is suddenly attacked with sensations of pain, heat and swelling accompanied with more or less increased secretion of tears. The

swelling of the upper lid soon becomes so great that all its folds are obliterated. Upon turning the lids the conjunctiva instead of presenting the usual red, rough, vascular, appearance peculiar to ordinary severe inflammation is smooth, yellowish and glistening and an inexperienced observer, for this reason would imagine that the affection was less serious than the other. And yet, in a vast majority of instances suitable treatment will relieve the latter disease, while the former proves in a large number of cases even with the best treatment one of the most dangerous, to which the eye is liable. The conjunctiva of the lids and sometimes of the globe becomes infiltrated with a firm organizable exudation, which in the most severe cases almost wholly destroys the circulation in this tissue. The exudation is also thrown out upon the surface of the conjunctiva forming a layer varying from a half a line to a whole line in thickness. The microscopical appearances of this membrane are well described in the first lecture of Prof. Clark above mentioned. This process of exudation, which takes place during the first stage of the disease in mild cases lasts but two or three days—in severer cases it contains six or eight or even ten days. At the termination of the first stage the membrane commences to exfoliate—occasionally in a single large layer of the form of a lid, but usually in small fragments, leaving a red, roughened, bleeding surface, which is the commencement of what may be called the second or blenorrhoeal stage, characterized by a mucopurulent discharge. Not unfrequently after the exfoliation, the membrane is renewed and again cast off—this process being in some cases repeated several times. The duration of this stage varies in length even more than the first. The third stage, when the disease is not arrested in its course, is distinguished by atrophy of the conjunctiva and even of the lid, in consequence of insufficient nutrition caused by obstruction of the arterial and venous circulation. The absorption of the conjunctiva is sometimes so great that the edges of the lids are bound quite firmly to the globe.

The prognosis as regards vision depends almost entirely upon the condition of the cornea. In consequence of the great derangement in the circulation and nutrition of the cornea and its adjoining tissues, the cornea very often, early in the course of the disease, presents a cloudy appearance over a greater or less extent of its surface. In twelve or twenty-four hours, the epithelium is removed and ulceration commences which often disorganizes a large portion of this important membrane. The prognosis is generally less favorable for adults than for children. The amount of exudation, and chemosis, the rigidity of the lids and the degree of ulceration of the corner are symptoms of the greatest importance as regards the ultimate result.

Of the true causes of diphtheritic conjunctivitis little can be said. It is undoubtedly a constitutional disease, the affection of the eyes being symptomatic. While mucopurulent conjunctivitis seems frequently to attack individuals in perfect health, as readily as those suffering from other diseases, this form of inflammation is almost invariably found in patients with health more or less impaired. Nearly a fifth of a series of cases in children (forty in number) observed by V. Graefe, bore undoubted signs of congenital syphilis. It is stated that the disease in this country has generally attacked patients affected with measles or scarlet fever.

The disease in Europe usually appears as an epidemic, as is shown by the observations of those who have had most experience. V. Graefe states that in his clinic, in which four or five thousand patients are annually treated with diseases of the eye, the affection disappears for months and again returns, following about the same laws in this respect as diphtheritic inflammation of the throat.

In reference to the period of life most subject to this disease, Graefe's cases show that one in fifty patients are attacked during the second half of the first year. Nearly one-half of his patients were between the ages of eighteen and thirty-six months. As the age increases beyond eight years, the disease

becomes quite rare. The disease can be communicated to a healthy eye by direct contact of the abnormal discharges. This almost invariably produces an inflammation of the most violent form, which, however, is not necessarily diphtheritic, but in many instances simply muco-purulent.

It would appear from the reports of cases, which we have been able to consult, that no absolutely satisfactory mode of treatment has as yet been discovered. Oculists of experience do not agree in reference to the use of calomel, caustic applications and local depletion, either by leeches or scarifications. The best authorities, however, have abandoned the use of caustics in marked cases of this disease during the first stage. Graefe recommended the free application of leeches to the side of the nose near the inner angle of the eye, and especially of compresses dipped in water. These should be changed day and night every few minutes. Particular care should be taken to remove the disharges from under the lids. Graefe recommends milk as a simple and soothing application for cleansing inflamed conjunctiva. The same author speaks decidedly in favor of full doses of calomel and especially of the endermic use of Ung. Hyd. until marked constitutional effects are produced. He states that the exudation loses its firmness and the disease often assumes the form of simple muco-purulent inflammation after their use. Patients should be confined to a liquid diet. Under this treatment more than two-thirds of Graefe's cases recovered, while scarcely a single favorable result attended less appropriate treatment.

In severe cases of diphtheritic inflammation of the eye, where not only the substance of the conjunctiva is infiltrated with a firmly organized lymph, but its surface covered with a tenacious membrane, we are certain no caustic application will arrest the disease. Incisions must be carried to great depth in order to produce depletion. It is doubtful whether much advantage can be accomplished in this way, since the incisions are soon closed with lymph, preventing much escape of blood. In the second stage of the disease, after the mem

brane has been thrown off and the surface of the conjunctiva presents the appearances of ordinary purulent inflammation, caustics and astringents may be used with benefit.

Although we believe the disease in its most violent form seldom leaves the cornea clear or the lids in their natural form, it is stated that sporadic cases are much less dangerous. It should be remembered that occasionally in ordinary inflammation of the conjunctiva, small patches of diphtheritic membrane will be formed upon the diseased surface. Such cases are usually quite mild. With these patches, however, should not be confounded circumscribed elevations, which are somewhat similar in appearance to them, but which are simple thickened mucous adhering to the surface and are not to be regarded as a serious symptom.

FORT DONELSON.

Your correspondent was one of the favored twenty selected by the Sanitary Committee of Chicago to go to look after the wants of our wounded at the fight at Fort Donelson. Tuesday morning found us aboard the train on the *Illinois Central* bound for Cairo, with hospital stores and delicacies. The Board of Trade and Citizens' Committees were also along, which gave us quite a deputation from Chicago.

Our train was hailed by anxious crowds at every depot, the fact of Donelson's surrender being rumored at most of the points we came to, and the shouts that went up from the assembled hundreds told of the response it met in their feelings. We had constant accessions, until sitting room was at a premium—friends starting to look after sons, brothers, and there was an air of anxious contentment on most countenances, that few could look on unmoved. They seemed to suppose their friends dead, but the cause in which they died dissipated every other feeling. One mother going to look after her only son,

especially attracted my attention, as she would mingle her hopes and fears in her conversation, it was easy to see which a mother's anxieties placed foremost.

As night approached, thoughts of sleeping cars were suggested, and Mr. Wicker, our energetic spokesman, telegraphed to Odin to ascertain the chance of securing one for our delegation. It was announced secured, and the illusion was only dissipated upon arriving at Odin, finding every place taken, the cross trains, on similar errands, having secured every birth. A few of our party, by some exchange or courtesy, secured places, and I, by the kindness of Dr. Evans, was favored with a few hours rest. I did not sleep—as I never do—nor could I, had I been most amiably disposed to. There was such a constant uproar of snoring as to drown the rattle of the cars. We had all varieties, from the high-toned amateur, to the old, well-developed, full bass. Some snored races, others at a mark; some by note, while others seemed, by their deliberate, dry, stiff getting-it-out, as tho' trying to spell it.

Our train was so long and heavy after leaving Odin, that before arriving at Cairo on an up grade—the track was slippery from the falling rain and sleet—we had three engines to take us along, and then had to take the advantage of down one hill to up the other.

We did not arrive at Cairo until 10 A. M. Wednesday, six hours behind time. Those who have been in that attractive and romantic locality, will appreciate the landing there, while it was pouring torrents, and the streets in their most hospitable mood. Their disposition to take you in was only equalled by their determination not to let you go, in so far we felt we were nearing Dixie.

I met Prof. Weber, of Cleveland, at Odin, who, as Surgeon General of Ohio, was going to look after the wants of the Ohio troops. We set out together at Cairo to find "Head Quarters," as only by passes can you get about in that martial law town. We found, as had been intimated before arriving, that no passes were issued to Donelson—orders absolute. The

excuse given by Gen. Paine, was that his jurisdiction only extended to Paducah, and of course he couldn't. We took our passes to Paducah. Meantime, on learning of the determination not to allow us to go to Donelson, our Chicago delegation had appointed Dr. Evans and Judge Scates to wait on Gen. Paine and inform him of our wishes, and urge an exception to the rule—which was so far successful, after very much trouble and urging, that while he did not issue passes himself, Dr. Taggart was furnished with blanks, and those desiring one marked for "Donelson," among which I was numbered.

When this point was gained, the next anxiety was to get a chance to go, as the running of steamboats was a matter of no certainty. However, we got word that the Governors of Indiana and Illinois, with their staffs, were on a Government boat, "Belle of Memphis," going up to Fort Donelson—and *had been for twenty-four hours.*

That was suggested as the most certain way of getting up, and so we got our baggage aboard, where we found a number of our delegation. The boat was very much crowded, the state-rooms all taken by the "staffs" and Governors, and, from what I heard of one of the latter officials, he found it necessary to keep his closely. He got so discouraged at the delay, that it depressed him.

Within an hour of starting and near night, our passes were called in question, and were decided of no use—could not go on them, not being properly countersigned. Word came from another boat, the *John Warner*, where the balance of our friends had taken passage, that a similar trouble existed there, and it was pay, or *go*, and pay *if* you go. Col. Cummings being aboard, interfered and used his best influence to get our matters straight, offering to certify to our mission, etc. The amiable clerk at last agreed to carry us to Donelson, but must lift our passes, so that we could get back as best we might—unless we came back when he did. It was finally concluded to risk the getting back, and we remained on board.

The whole was gotten up for effect, for, as we ascertained

afterward, the boat being employed by the Government at so much a day, our passes were good and he was not required to have any evidence of having carried us—to obtain his pay, as he asserted—as also further proven by the fact that our passes *were never asked for.*

The embarrassment at Cairo had a very unfavorable influence on many of our company, who seemed to be no friends in the first instance to "red tape." It is not according to our go-ahead way of doing things—a man's mission being all the pass he needs. Not so there, everything went according to rule, greatly to our annoyance. All well no doubt, and yet it was rather discouraging for men who left profitable professional employment many of them, and others occupations not less so, to attend to the wants of sick and dying men, to find men standing resolutely in the way of its accomplishment. The impression left, though the rule may be right, was not good.

Our steamboat troubles, we found were not so much owing to the trouble about passes as to the Captain's political views. He was a Secessionist, whose boat had been impressed.

In the afternoon, while waiting, I visited the gun boats. They are formidable looking machines; sides slanting from the water to the top, or hurricane deck of ordinary boats, upon which the pilot house is situated, whose sides also slant. The sides are iron-plated, which forms a uniform covering, except the port holes for the pilot to see through. These slanting sides give the striking ball, an obliquity which increases their aptitude to glance. The smoke stacks, with the pilot house, are the only objects which interrupt the uniformity of the vessel, except a narrow walk around the outside, on a line with the port holes. I first visited the *Tyler*, upon which I had the good fortune to meet my friend Dr. Jones, of Cincinnati, who was its Surgeon. He showed me in detail its inner works. The inside is kept scrupulously clean. The guns, of various size and beautiful construction, seem to be the most

perfect of all war apparatus. They are kept in perfect order; vary in number—four on the sides and three at each end, being, I think, the usual number. The *Tyler* is entirely new, never having been in service. These gun boats seem altogether better fitted for serving cannon than any other. Everything can be kept in its place; no dragging them about on land to get stuck in the mud; men as well protected as possible; port holes just large enongh to allow the men to stand beside while they load. But the shock must be tremendous in the confined room. Wonder if they have had the suggestion, of glycerine on cotton to fill the ears, made to them? I forgot it.

I next visited the *Essex*, where I found another friend, Dr. Rice, as Surgeon, formerly of this city. Capt. Porter is Commander. One needn't go very far over that boat to see that it has seen service. It was at Ft. Henry and received two balls, which went through it from end to end, besides numerous others. The front part of the boat is not yet plated, though it is painted black and from a distance it would be impossible to tell that it was not, but the enemy knew it. One ball struck directly in the forward end and went the entire length of the boat, hurting nothing except tearing the boards handsomely and coming out of the stern, which was also unplated. Another ball was more fortunate. It passed through one of the forward port holes, took off the hinder half of the head of Capt. Porter's aid, Brittain, and struck the steam pipe, cutting it, filling the room with steam, which went up filling the pilot house, scalding two pilots to death instantly and some marines. Captain Porter, as our readers recollect, was very severely scalded, but told me he had presence of mind to cram his scarf in his mouth. One of the sailors picked him up, and though he is a man weighing over two hundred, carried him on the narrow walk outside (9 inches wide) the entire length of the vessel, from before aft, during the progress of the battle, and so saved his life. The Captain related to me the attachment of one of our marines to our flag. One of these

worst scalded, when it was announced that the white flag was up at Henry, raised himself up on his elbow—"Three cheers for the Stars and Stripes," said he, and, falling over, died with the words on his lips. The Captain was very severely scalded and his life was despaired of for several days. When I saw him his face was still scabbed over, and his eyes closed almost entirely, but he didn't talk as though there was, or even had been, anything the matter. He is decidedly a bold, fearless Commander, and a fit one to follow where our brave, pious old Commodore leads. I there met Lieut. Paulding, another, who, as well as Porter, are descendants of Commodores in the U. S. navy, whose names they bear, and whose history warrants us in expecting good things of them.

We got off up the river about 5 o'clock in the afternoon. Our accommodations were none of the best, but I secured what I could of a mattrass, only six feet in length, by the kindness of some friends, and, having slept none the previous night, enjoyed it finely. As to eating, we could get nothing. The steward pretended to serve those who wanted it at the inevitable four shillings, but, hungry as I was, I had no stomach for it. Like some of our single handed eating houses one pot of vegetables would last an entire season. How or by what process they alter the taste of their cooked food so that one cannot tell what it is, is more than I can imagine. Everything had a "gulchy" taste.

We had on board, that I recollect, Gov. Morton, of Indiana; Gov. Yates, of Illinois; Prof. Weber, of Cleveland; Dr. Douglass, of *Am. Med. Monthly*, who is connected with San. Commission; O. M. Hatch, our Sec. of State; ex-Gov. Wood, of our State; Comp. Ward, and Rev'ds Collyer and Tuttle, Drs. Rogers, Walker, Hahn, Andrews, of our city; Dr. Cornyn, of Gen's Lyons' staff.

We had rather a pleasant time, though we began to see the evidences of approach to our destination.

A gentleman got on at Paducah, who learned from one on board that his only son was killed. It could not fail to move

the heart of any one to see the tears rnnning down the sunburnt face of that devoted father, while he told of that only, dear boy, before he left home last spring, planting the roses over and adorning the grave of an only daughter.

We arrived in sight of Donelson on next afternoon, Thursday. The afternoon was very chilly, though all were on deck, and, as we neared it, one thing was certain—the admirable selection for defence. The Fort is situated on an eminence or bluff; with its water batteries below, commands the river, which approaches it—a straight line for three miles—with no way to come except straight up to it, unprotected by the slightest bend in the river. The banks bore evidence of the recent conflict.

When we arrived at the landing, I got my pass, and having friends in the gallant Iowa Second, parted with Prof. Weber, expecting to meet him on the morrow, and, by the way, we haven't met yet.

It was getting dusk before I set out on my uncertain errand of finding a regiment among forty, without any directions as to where they were or how to find out. I started over the hill to get among the camps to get my information if possible. I got over the hill, and into the mud, and dark and brush, and stumps and water, and hollows and ravines, and creeks and logs, and every place except where any one could tell me anything I wanted to know. You can get a good idea of their knowledge of each other's regiments by the knowledge of individuals of each other in large citizes.

Nothing daunted, still I went. Some one suggested that, as they had fought on the right, they *might* be in the Fort. That was hint enough to walk a few miles on at least, and off I started at the point of a man's finger for the Fort. To undertake to describe how I got to that Fort that night would tire the patience, if it didn't the credulty, of your readers; how I came to bottomless roads, necessary to cross, and yet found the *bottom;* impassable creeks, and yet *passed* them; changed guides twice, both picked up by chance, and yet the

very men most serviceable; and when at last I got into the Fort, found our regiment there, and, above all, my friends both safe, I may leave my readers to imagine that I felt as though rescued.

The next morning (Friday) I went, in company with Col. and Adj. Tutle, Surgeon Marsh and Assistant Surg. Nassau, to view the scene of the late conflict, and their glory. To describe everything I saw would require more time than I can spare, and perhaps ere now my readers are beginning to think this a curious professional letter. I didn't have the least idea when I began of writing a professional letter—only things as seen by a professional man.

The Iowa Second Regiment is the regiment of honor, as having led the charge on the intrenchments and being the first inside. I saw the place of their charge and entrance, and I must say it was an accomplishment worthy of the praise it has received. All honor to the Surgeons of the regiment, for they did their whole duty. The Surgeon established his quarters, and the Assistant Surgeon, Dr. Nassau, followed with his squad between the wings within fifty paces of the entrenchments, where his men began to fall, and carried them to the rear. There was no deputy needed for him; he went himself. For cool courage and successful accomplishment that charge has few parallels in history, and received the merited compliments of the rebels themselves.

Several narrow escapes by the Colonel were told me. A cannon ball struck a log on which he was standing, knocking it from under him, injuring him by the fall very severly. While he was crossing the head of a ravine he saw two men lying by the root of a tree, both aiming at him, not more than thirty paces distant—both missing. The bullets passed by his head, when one of his privates stepped forward, fired, and killed both of them. A ball passed through his gauntlet, striking the hilt of his sword, and paralizing his hand for a time. The regiment suffered much. Out of about 500 men taken into battle, 202 were either killed or wounded.

We followed around the entire line of entrenchments. The hardest fighting was done on the extreme right. Everything betrayed the sanguinary struggle that had there taken place. Horses dead; filled trenches marking the graves of the slain; some marked by boards with names and regiment; others without any mark; trees cut off, barked and scarred; hats with holes through and blood marks inside; cartridge boxes, canteens, and everything in mingled confusion, with here and there the hitherto undiscovered remains of some victim. At one point at that part of the entrenchments I noticed that the trees and underbrush were unusually marked by bullets. I saw, in passing a hundred yards, not a single one untouched. One tree six inches across had in the first eight feet of it fifteen bullet marks.

From the right of the entrenchments we passed through the little town of Dover to the river. In passing I called at a single hospital, which was mainly occupied by rebel wounded. The Surgeon was a Dr. Metcalf, of this State, and a rebel Surgeon, Dr. Holcom, of Miss. The patients seemed to be well cared for and in good condition. The hospitals of Dover are the larger dwellings, churches, while others are placed in sheds, and many of them in most destitute condition. I saw none of these myself, but had it from others that they were most deplorably cared for, lacking everything that could assuage the sufferings of the wounded or give them a chance for life. Their surgical attendance is entirely inadequate, and there is no effort made by the inhabitants, though the wounded there are nearly all secessionists, to give them relief. Their Surgeons were allowed to attend their wounded, and, when told of their needs, quietly said they had nothing to do with them when they did not belong to their regiments.

I arrived at the river about 2 P. M., and set out about finding where there was work to be done. I went aboard the *City of Memphis*, and found it to be the Hospital Boat, and without a Surgeon except the boat Surgeon, Dr. Turner himself. This boat receives the sick and wounded as a depot,

and then sends them off by other boats, as may be directed. There were on board over 200 wounded soldiers, and one may well wonder how much headway one Surgeon could make in such a list of cases, and in addition have the entire charge of the boat, moving patients, &c.

It is said that the amiability and professional courtesy of the polite and well disposed physicians of a neighboring city are chargeable with this delightful and humane state of affairs; but of this I know nothing more than rumor, and hope for the sake and in the name of everything honorable it was not so.

I met Dr. Turner, who politely invited me to go work, and I was soon engaged in all the military surgery the most anxious could desire. When I started I began alone to work on one end of the long tier of cases. Very soon Prof. Andrews, of this city, came aboard, and we divided the boat between us. Soon, also, Drs. Rogers, Hahn, Walker, of this city, Dr. Perry, of Hunter Station, and Dr. Wyman, of Rockford, came and gave us valuable assistance.

The wounded occupied the cabins of the boat from one end to the other; arranged with their heads towards the state rooms, and as close together as their mattrasses could be placed. The state rooms were all filled also, except a few at the stern for the officers and nurses. The sick were placed principally in the state rooms, the wounded outside.

Nurses were detailed from the regiments there to wait on the sick, and some were most valuable, while some of them were indifferent, and the first night many of them went to bed and left the volunteer help to provide for their wants.

We had some most serviceable help of that sort from this city, and some whose aid was invaluable, and such as should entitle them to the everlasting gratitude of Chicago. I particularly mention Comptroller Ward, A. G. Downs, Rev'ds Collyer and Tuttle, and Mr. Munson. These gentlemen did a noble and devoted part by these poor wounded, suffering and dying men. Many a look of unspoken gratitude was given to them from the fast glazing eye of the dying soldier.

We had a work before us that could well move the deepest feelings of the most insensible heart. There lay twelve score of men who had perilled their lives for us and our country. The misfortunes of war in their worst shape had overtaken them, and quiet, gentle, comforting words of all, both Surgeons and nurses, tended as far as could be to make their sufferings bearable, and showed how profoundly sensible they were of the character of the cases they had in charge. I continued up, working with my cases until three o'clock next morning, and by that time we had succeeded in redressing all the wounds and making them comparatively comfortable.

The Surgeons who had previously dressed the wounds seemed impressed with the idea that the quantity was of much importance, and as a consequence bullet wounds were well linted and closely bandaged over to prevent the escape of matter. The trouble seemed to be *too much* dressing. One case of gun-shot wound of hips must have had three full length rollers on it, or near thirty yards.

The simplest possible dressing was used, and where it could be applied, nothing more than a compress dipped in cold water, and frequently changed. One Surgeon is mentioned at Paducah, who, from want of anything else, or his own originality, dressed his wounds with blistering cerate.

The wounds were of almost every possible variety, and I call up from memory, after the lapse of two weeks, some of those that I saw.

Two wounds of head by balls, both balls entering brain; one had died and other would. One struck by passing ball, depressing skull; I trephined him, but he would probably die. One upper jaw shot out; one lower jaw struck by a ball at symphysis and broken into four pieces, one piece taken out and others very much dislocated by action of muscles. He was a brother of one of our students of 1860–1, who was with him and giving him a brother's care. Erysipelas also broke out in his face; treated with Iron locally and Iron and Quin. internally. One case a bullet entered the external ear coming

out on the opposite side between the jaws in front of the ramus, cutting the palate severely. One case a bullet passed between the esophagus and trachea. One a bullet entered as the body was stooping at the lower end of the scapula coming out on the neck in front, cutting the apex of the lung. Three cases of bullets directly through lung, all died. Two were of Minnie balls—holes very large—and both of them suffered very much. Several wounds of the arm and forearm; one a fracture of the surgcial neck by a ball. One ball struck a man lying on his side in the epigastric region and following between the layers of muscles came out on the back part of the hip. One, the son of the lady I mentioned as going to look after her son, was shot directly through the right illiac region, the ball remaining in, and he well enough to be removed home—no seeming trouble. One poor boy shot directly through the sacrum, suffered terribly, paralized bladder, though his bowels moved naturally. Had also another wound through thigh.

Very many were shot through lower limbs; three or four through knee-joint; two through ankle-joint. Those through the joints, as inflammation arose, suffered intensely. We had several cases of amputation on board which had been performed. All the operative surgery had been performed before, as it was a week after the battle. The wounds made by the balls of different kinds were generally easily distinguishable. The modern minie ball, from its great size and tearing qualities, will most likely largely increase the mortality from wounds, of those not killed immediately. The inflammation in joints arising from such balls, must need be destructive.

The wounded were mostly very patient and easily satisfied, and grateful for attentions. They seldom complained, and with few exceptions, and these with every reason, made but little noise. One poor fellow, whose breast had been bored through by a Minnie, suffered excruciatingly at every breath—seemed as though he couldn't die. I think I never had my sympathies more completely stirred. His name was Allen, from

Effingham, in this State. I raised him often, to try to cough the mucus and blood from his clogged throat, and the air would escape by the bullet holes, frustrating his object, until I stopped them with my fingers.

One soldier named Medland—31st Illinois, Co. B—was in the first instance shot through the knee-joint. He did not give up, but still kept firing. Another ball struck and went the whole length of the thigh—a flesh wound; and still he fired until a ball coming shattered his left arm and stopped his handling his gun. This man then lay on the field 2½ days, without food, drink, or shelter, before his wounds were dressed. I had no more resolute man, or more cheerful one, under my care, and he talked happily of the time when he would be well enough to try it again.

Another almost similar instance of a young man named Broderick, 8th Illinois, first shot through hips, then arms, and not until a ball broke his gun, shattered his left hand, did he desist.

Surgeon Marsh told me that of his two hundred and two wounded and killed, but a single man moaned, and he was shot through the lungs.

On Friday afternoon we changed to another boat seventy-five of our cases—bound for Cincinnati. On Saturday morning we had some stores from Chicago put aboard: wines, jellies, lemons, brandies, and it was a great comfort to our suffering patients. The suddenness with which such a number of wounded men are precipitated on us must be some apology, and yet there must have been criminal negligence somewhere, for our boat was unable to obtain a pound of fresh meat to give our patients, and instead of animal broths we had to feed them on indifferent corn gruel. I maintain that when men are willing to peril their lives for us, the least we can do is to take good care of them, and do it promptly. We left on Saturday morning and arrived at our destination, Mound City, the next morning.

We lost six or eight on the way. Two cases of amputa-

tion died; one of the leg and one of the thigh. I noticed particularly how excessively painful their wounds become as collapse set in; to me an unusual thing in other practice. It rained Saturday; and while we kept as well aired as possible, the stench become almost unsupportable. The consequence was we had four cases of Erysipelas before we got to Mound City.

I went through the hospital at Mound City on Sabbath, and was greatly pleased at the admirable arrangements it contains. It is one side of an entire square, upon which a business block of buildings had been erected. They have been fitted in a substantial and convenient manner for wards, and it makes a magnificent hospital. Everything about it is marked by order and care for the inmates. The building is three stories high, each of which furnishes a ward the size of the intended store below. The wards are very numerous, well ventilated, light, clean and comfortable. The patients and their beds are clean. Their food is of good quality, well cooked, and put before them in an eatable shape. Many of them I noticed with articles of luxury that must have been gratifying to their dainty palates.

I saw of the Sisters of the Sacred Heart there, who have the supervisory care of the nursing, and admirably is it done. I was more than pleased at the quiet, orderly and unobtrusive way in which they performed their deeds of nursing. I cannot say so much, however, of the generality of our volunteer female nurses. I think they are a nuisance, and one that ought to be abated instanter. It is the opinion of the Army Surgeons also. Many of them are very excellent women, but such as are, seldom retain their excellencies. I think a female, to go into the wards of an hospital as a common nurse, is sadly out of place; and if she has not already lost her womanly delicacy, will not be long in doing so, and either be slandered or *not*. Besides, very few women with minds right, their hearts and everything else in the right place, propose themselves for such a place. But there are services that can

be done by none so well as by women: the preparation of food, care of the linen, and cleanliness of patients, preparation and administration of delicacies. These, with other nameless hundreds of kind offices, can be done by none so well as women.

I found the wards there supplied mainly by volunteer Surgeons, and the care, skill and humanity showed by them in their duties is worthy of all praise. I met there Dr. Rooker, of Indianapolis, Dr. Riddich, student of Rush Med. College, Drs. Winchester and Adams, of Elgin, Dr. Fishbach, of Indiana, gentlemen whose qualifications give ample guarantee for the service they render.

The only unpleasant fact in connection with this hospital is that it is under the charge of a homœopath. But, as none of my acquaintances seemed to know it who were attending there, I don't suppose he intrudes either himself or opinions on them.

I append, by consent, Prof. Andrews' list of location of injuries, taken from *Medical Examiner:*

Wounds of cranium, 14; of scalp, 19; of eye, 4; of jaw, 4; of chin, 2; of tongue, 1; of ear, 3; of mouth, 4; other parts of face, 10; of neck, 8; fractures of shoulder, 13; flesh wounds of shoulder, 30; fractures of arm, 16; flesh wounds of arm, 27; wounds of elbow, 4; fractures of forearm, 4; flesh wound of forearm, 4; fractures of hand, 25; flesh wound of hand, 11; wound of chest penetrating cavity, 10; wound of chest not penetrating cavity, 10; wounds of back, 5; wounds of abdomen, 7; fractures of hip, 7; flesh wounds of hip, 8; fractures of thigh, 9; flesh wounds of thigh, 37; fractures of knee, 2; flesh wounds of knee, 7; fractures of leg, 9; flesh wound of leg, 27; fractures of foot, 4; flesh wounds of foot, 2; powder burns, 2. Total, 360.

CASE ILLUSTRATIVE OF PREJUDICIAL INFLUENCE OF QUININE IMPROPERLY ADMINISTERED.

By DR. EDWARD LAWRENCE,
Hopper's Mills, Henderson Co., Ills.

[This paper was received some time since, but was mislaid.]

A little boy aged three years, with a very large brain, was taken with fever on Wednesday night. Thursday morning the fever had somewhat abated, and the mother prevailed on the child to go to the breakfast table, but the boy said he was too sick to eat. While at the table, the child was seized with a convulsion, and fell off the chair on the floor. Reaction took place, and the parents sent for Dr. ———, who came immediately, and said the boy had the ague, and prescribed twelve powders of Sul. Quinine; one to be taken every two hours, commencing about ten minutes after reaction from a convulsion.

I was requested as a friend to step in. I found the child in high fever, skin dry and hot, with a great determination of blood to the brain; pulse quick, hard, tense and incompressible; pupils dilated; tongue coated in the center, with edges and tip red; abdomon enlarged and hard, showing a retention of urine.

In about fifteen minutes after Dr. ——— gave a quinine powder the patient had another convulsion. They gave four of the powders, and the patient had four convulsions.

In the afternoon I was called to see the patient. I found all of the symptoms aggravated. The patient was in a comatose state, with great determination to the brain. I ordered cold applications to the head, mustard draft to the spine, used

the catheter, and prescribed x gr calomel and 1 gr James' powder. After waiting eight hours, ordered a dose of castor oil. In due time the bowels were moved, but no action on the liver. I repeated the dose, but with the same result. I then prescribed four powders, containing each 1. gr Calomel, ½ gr. Ipec. and ½ gr. Opii; one to be given every two hours; which had a decided action on the liver, resulting in amelioration of all the urgent symptoms. Together with the above treatment, I gave Sweet Spts. Nitre and Syrup Ipec. every two hours, with the view of controlling the action of the heart, equalising the circulation, and giving a determination to the skin.

Other urgent symptoms set in that appeared almost insurmountable. Although the pulse became soft, full and compressible, there was still a tendency to determination to the brain. The determination had been so great that paralysis of the bowels and bladder was the result. I had to resort to catheterism every day. The bowels became tympanitic from loss of nervous influence. I gave large doses of Turpentine every night, bathed the bowels with the same, applied the bandage, and kept cold applications to the abdomen I continued the above treatment, fulfilling every indication as it arose, until the seventh day of the fever, when the remission became distinct. Then I prescribed eight powders, each containing 1½ grs. Sul. Quinine, ½ gr. Ipec., ½ gr. Chlor. Potash; one powder to be given every three hours during remission. Under this prescription the child appeared to rally, although the accumulation of gas in the bowels was very great, I could relieve it by introducing a large sized elastic male catheter, and warm injection of rain water, salt and castile soap.

I continued the Quinine prescription for three days, when the child was restored to health. The healthy function of the bowels and bladder was gradually restored. The tenth day from the commencement of the fever I discharged the patient.

The indications of cure in this case I thought were, first—to relieve urgent symptoms; second—to draw off irritation

from the brain, control the action of the heart, and equalise the circulation; third—to establish healthy secretion; fourth—to break up the paroxysm. I fulfilled the first by resorting to catheterism, and cold applications to the head; second, by sinapisms to the spine, and administering a cathartic arterial sedatives and diaphoretics; third, by administering small doses of Calomel, Ipec. and Opii; fourth, by tonics, diaphoretics and saline diuretics.

Did the course I pursued have a tendency to cut the fever short or prolong it?

The previous treatment I thought was wrong from the fact that there was such a great determination to the *brain*. I was under the impression that the Quinine only caused a greater determination to that organ.

TWO CASES IN PRACTICE.

By J. B. HOAG, M. D., Windfall, Tipton Co., Ind.

About the 1st of August, 1860, whilst visiting the town where I now reside, I was requested to visit a child which had previously been under the charge of a so-called "Eclectic," who had pronounced it a case of phrenitis, and prognosticated a fatal result. Contrary to the usual habit of his class, he consented to my taking charge of the case.

In a community a large number of whom pinned their faith implicitly upon the Eclectic's sleeve, it may be imagined the noisy clamor of tongues which ensued. It may be left to surmise how the "permanent committee" of gossips reported a chorus of "chin music."

Alas for human nature!—but it seemed as though, whilst astounded at my presumption in daring to come athwart the pathway of their favorite, they almost forgot to wish that the child might by some means be spared to the widowed mother.

The patient, a little girl of three years, I found with a high fever, in a comatose condition from which it had been impossible to arouse her for forty-eight hours. From the entire absence of evidences of phrenitis, and the history of the case, there was no difficulty in diagnosing the real character of the difficulty to be bilious remittent, aggravated by the nature of the gastric and intestinal contents, evidently of a noxious character, and probably also by the presence of worms.

Much to the comfort of the mother, but, I regret to add, exceedingly to the discomfort and chagrin of our eclectic friends, I gave a favorable prognosis.

One of the ladies of the "permanent committee" immediately conveyed the budget to Dr. S., the eclectic, of course not forgetting the worms. Whereupon S. avowed his deliberate intention to eat every worm passed more than three. Three worms were, I suppose, allowed as the normal total for the three years of the patient.

Ordered the child a free cathartic dose of calomel, with a small quantity each of ipecac and gamboge. Applied rubefacients (horse radish leaves) to the nape of the neck, hands and feet.

In a few hours the medicine operated; the first passage the mother remarked, "looking like the white of an egg, only it was green as grass." As soon as this was discharged, the child roused from its stupor, and raising one of its feet, called, "Ma, ma," the first words it had spoken for more than two days.

The draughts were removed, and I then exhibited Sp. Nitri Dul., combined with Tr. Verat. Virid., and repeated the mercurial cathartics (principally Hyd. Cu. Creta) followed by Ol. Ricini. After a short time, the fever began to have short intermissions, during which I gave as large doses of Sulph. Quiniæ as I thought the child would bear. During the febrile paroxysms, continuing the mixture of Sp. Nit. Dul. and Tr. Verat. Virid.

It may be mentioned that within the first three days of treatment, the child passed a considerable number of worms, some alive and others dead—which, however, the eclectic gentleman failed to make good his promise with regard to. Convalescence took place rapidly and without any marked symptoms.

Some time subsequently, it was attacked with "congestive chills" of a dangerous type, but they were relieved by the usual treatment, and it is now in the enjoyment of excellent health.

Among the indescribably ludicrous features which, from the very outset, marked the history of this case, it may be mentioned, that the astonished Eclectic now declares that he never called it Phrenitis; that he never said it would die, and on the whole seems to doubt whether he was ever called to see it at all, or, if so, whether it was sick any how!—So goes the world.

In the same neighborhood, and under the oversight of the same Dr. S., was a case of very dissimilar character, but which to me shows the efficiency of active treatment for real disease. Many cases tend spontaneously to health, and these make the fortunes of Homœopaths and quacks of other shades; but some cases demand positive treatment, as I think the following illustrates.

J. G., unmarried, had been troubled for several years with dysmenorrhœa. I found her anæmic, variable and capricious appetite, feeble pulse, cold extremities, habitual constipation, evidently dependent on hepatic torpor. Menstrual discharges scanty, painful and irregular.

Ordered a free cathartic dose of Cal., Aloes, Ipecac and Capsic., to be followed by Ol. Ricini. After thus unloading the canal and correcting the secretions, I prescribed the following mixture, ℞ Tr. Guaiaci ℥ij; Tr. Mur. Ferri ℥j; Tr. Myrrhæ ℥j; Tr. Aloes ℥iij; Tr. Sanguinariæ ℥iss; M. a teaspoonful three times a day.

Also, ℞—Carb. Ferri, part. ij; Carb. Soda, Pulv. Zingib. and part. j. M. S.—As much as would lie on a three cent piece, half an hour after each meal. Hot foot baths every night—a heaping table spoonful of mustard to a sufficient quantity of hot water. On the approach of the period, to drink freely of a hot decoction of wild ginger and tansy, and to apply a fomentation of the latter over the uterine region.

On the access of the first subsequent period, the discharge was more free, but still accompanied with considerable pain, which was soon mitigated by full doses of Pulv. Doveri and Camphor.

No modification of the treatment became necessary, as she speedily became perfectly restored. Is now married and enjoys better health than she had before for years.

The origin of the trouble illustrates a peculiarity of feminine tendencies. It appears that some three years previous, a church dedication was to occur at eight miles distant, which the young people of the neighborhood were anxious to attend The untimely advent of the menstrual period made the young lady fearful that she should be obliged to remain behind. The night previous to the meeting she stood for nearly an hour in a tub of ice water; the result, naturally, being immediate cessation of the flow and ruined health for years.

The only wonder is, that even more serious results did not ensue. But who can account for women?

SELECTED.

CLINICAL LECTURE ON ANÆMIA AND BLOOD-LETTING.

Delivered at St. Mary's Hospital, Nov. 14th and 28th, 1861.

By THOMAS K. CHAMBERS,
Lecturer on Systematic and Clinical Medicine.

GENTLEMEN: You will all remember the corpse like pallor, made more conspicuous by red hair, of a girl, admitted this day fortnight into Victoria Ward. She smiled courteously, but was quite unable to rise from her bed. Her history is as follows:—

Margaret C., now aged 20, seems to have had very good health in general, as is shown by her remembering that she had such an unimportant ailment as a pain in the right side when she was a school girl of seven years old. She seems to have been carefully brought up by a step-father in a higher class of life; but three years ago she lost him, and had to go into service as a housemaid. For this work she was hardly strong enough, and, perhaps, too tenderly educated, and after eighteen months' trial she gave it up, and was apprenticed to a Berlin-wool shop. In this place her mental superiority was apparently recognized, for she quickly became forewoman, with three girls under her, in a shop at Maidstone. She felt this responsibility a good deal, and also thought the closeness of the shop did not suit her, though it did not seem to make others ill. However, she retained a high, bright color in her face, for which she seems to have been somewhat admired, till nine months ago, when she began to lose it, and in a few weeks became as waxlike in hue as she is now. At first her appetite was large, and she always seemed in want of food; but after three months it failed, then ceased entirely, and she took a disgust to food. She had a good deal of pain in the epigastrium and to the left side of it, and also palpitations and pain of the heart. Three months ago she spat up some blood,

and had a little cough, which frightened her sadly Three times during the nine months she has had attacks of low spirits, with crying, but does not appear at all hysterical now. The catamenia always were quite regular and sufficient till the commencement of the anæmia nine months ago, when they began to get scantier and scantier, and at last ceased entirely. The urine is pale and watery, the stools scanty and steadily rare; but there is no sudden gush of bulky stools, diarrhœa alternating with constipation, or other indications of accumulation of feces in the intestines.

She expands her chest perfectly, and there are no abnormalities to give rise to a a suspicion of pulmonary tubercle, at all events in such a quantity as to cause anæmia. There was a soft and systolic murmur in the heart when she was agitated at first admission; but it went away after she had rested in bed five days.

First, now, for the name by which I have already designated this patient's disease. Anæmia, or "bloodlessness," means in scientific language a deficiency of the red disks in the blood. The word has been objected to because it has been supposed to imply etymologically that there is a deficiency in the actual quantity of circulating fluid, of which, indeed, there is no proof. And "Spanæmia," or "thinness of blood," has been proposed in its stead. Such accuracy would be highly commendable, if it were only accurate; but in truth the fact of *thinness* does not describe the essential nature of the disease; for the specific gravity of the blood might be raised as high as you like, but if you did not restore red blood-disks, nothing would be gained; the morbid state would still exist. But, in reality, there is no occasion for fault-finding. Anæmia, by the analogy of Greek etymology, does not mean deficient quantity of blood, but deficient quality, just as in Aristophanes *aprosopos* does not mean a man "without a face," but "with an ugly face," *anarithmos* means "difficult to count," and so on. I shall theerefore contentedly use the term to include all cases in which the blood-disks are beneath the normal proportion.

Anæmia is found during life in a great number of the organic changes of tissues which you see in museums and lectures on morbid anatomy, and may discover by diagnosis. In other cases of equal importance and prominence it is absent. Very frequently, too, you find it in an extremely high degree in cases where you can discover no organic change in the solids at all, and where, from the transitory

nature of the bloodlessness, there is reason to conclude that such organic change really does not exist. Under this last category comes the patient who is the occasion of my present Lecture.

To understand how it is that so many causes are followed by the same effect, and by an effect by no means proportioned to the general importance or want of importance of the cause, you must reflect upon the true relation which the blood bears to the rest of the organism. It is in the same position as a great thoroughfare in an important town. Very little trade, and still less manufacture, is carried on in the street itself, yet from the nature, the number, the pace, and other characteristics of the vehicles and people which pass, you may form a pretty shrewd notion of the commercial prosperity of the population. A foreigner standing in Cornhill and viewing the steady quick pace, and active, careful, yet healthy faces of the many-classed by-passers, the well-packed loads of the vehicles, and their varied yet subdivided contents, cannot fail to see that he is an industrious well-to-do nation. But it is not the mere fact of the crowding that makes him say so, for last Saturday he would have seen a greater crush at the same place though that was only in consequence of all trade being suspended for Lord Mayor's-day. And at Naples, the lazaroni and pickpockets who block up the pavements are evidences that trade is not only suspended, but prevented, by a dangerous horde of villains. So, in the blood, the physician traces proof how constructive metamorphosis (the city's manufacturing industry), destructive metamorphosis (its consumption), and effective life (its social happiness) are carried on.

The traveler must not be deceived by an idle multitude in one spot, in estimating the strength of the population, nor must we set down local congestion as proof of excess of blood. In both cases, experience shows we have strong presumptive evidence of a deficiency.

Neither must a mere bustling throng be reckoned as industrious citizens. There are cases where a large amount of solid matter, even where a large amount of red disks, adds no more to the usefulness of the circulating fluid than the lazaroni to Naples, and which are, therefore, as far as treatment is concerned, really in a condition of anæmia. Of these cases I will speak at a future opportunity.

But though crowds are no evidence of sound political health, yet it is certain that deserted streets prove the contrary. So anæmia, or deficient redness in the blood shows a

deficiency of life in the ministers to that redness; either the supply of food is too small, or its assimilation is defective, in both cases either absolutely or relatively, to the existing demand.

In many instances it is easy enough to lay the finger upon the instrument of life which is to blame. We can detect without difficulty the causes at work—starvation, which anybody can understand, leads to an absence of the organic matters made out of food; disease of stomach, in which the aliments are not prepared for assimilation; disease of liver and duodenum, producing the same result; disease of intestines, or their glands taking up no adipose matter especially, and so preventing cell growth; disease of the spleen or lungs, which physiological experiments, independent even of our observations of morbid phenomena, show to be answerable for the formation of new blood disks; a way yet unknown; mental derangement, care, disappointment, which so readily arrest the activity of the assimilating viscera; these agencies, and many more, are readily comprehended as causes of anæmia. But there are a considerable number of cases where nothing tangible of this sort is to be made out, yet where the paleness of the blood seen in the face, lips, tongue, or in a drop taken from a pricked finger, and evidenced by the faintness, weakness, palpitation, anasarca, amenorrhœa, &c., are even more marked than where demonstrable lesion is to be found. So it is in the present instance. The young woman's history gives no reason to suspect any organic disease of the lungs or other organs, and the functions of life were fairly performed till she began to get pale and languid nine months ago. The want of red blood, which we look upon as the important feature in her case, attracted her attention also particularly, as she had previously had a fresh, high color. Then, after an interval amply sufficient to enable us to separate cause and effect, come the symptoms which I wish to notice as the consequences of anæmia. Causes, no doubt, they are in some instances, but here consequences. I mean the loss of appetite, impeded circulation, cessation of menses, hemorrhage from respiratory mucous membrane, and hysteria in a person unaccustomed to it.

The only explanation she can give of her loss of health is her having been employed in a shop less ventilated than she had been accustomed to, and having the responsibility of the concern thrown upon her. Alone neither would have been sufficient, as the shopwomen under her do not appear to have

suffered from the air; while, on the other hand, women in retail business are not as a rule anæmic. But still I think that both together may perhaps be fairly saddled with the blame, for whilst the increased mental labor was increasing metamorphosis, the greater demand was not responded to by greater supply, but, on the contrary, assimilation was checked by the even moderate unwholesomeness of the respired air.

Of course, the not being able to trace deeper, the anatomical cause arises from the imperfection of our knowledge, but it does not arise from neglecting to apply such knowledge as we possess to practical medicine. If we were to make an autopsy of this patient instead of curing her, we should in all probability find no more lesions in any of the tissues capable of accounting for the disease exhibited in the blood than we have already found. A fortnight ago Dr. Gull, Mr. Malton, and I examined the body of a gentleman who had died at forty-six of anæmia, and made separately microscopical investigations of portions of the several viscera. Nothing abnormal could we find in any part. The typical healthiness of all tissues was very remarkable in a man of that age. There was not even a single adhesion of the pleura. I mention this in order that you may not lament the opacity of your patient's bodies, or suppose yourselves likely to learn how to treat them better if you could see their insides.

Anæmia, without obvious organic lesion, when properly treated, is a very curable condition, and this should still further reassure you, that you miss nothing by not being able to study its post-mortem pathology. For transitory and curable states leave but little foot-prints behind them for morbid anatomists. In a great majority of cases they depend upon the mucous membrane, of all the tissues in the body the one most affected by mortuary changes.

To the mucous membrane I am disposed to attribute the condition in which we find our present patient. The two circumstances to which I have traced the illness both act directly or indirectly on the tissue. The mental exertion involved in an unusual responsibility thrown on a conscientious person would arrest the action of the involuntary muscles which carry along the mass of food through the alimentary canal. You know well the time your food is in leaving the stomach if you are called to an important midwifery case just after a hearty meal; and several commercial and literary men have complained to me of attacks of vomiting (that is, temporary paralysis of the stomach), when they took dinner alone, and

so were apt to let the mind dwell deeply on some interesting subject; and they have told me in wonder that they could dine out and eat and drink all sorts of rich things with impunity. They did not seem aware of the physiological value of frivolous conversation. At the same time that the moral causes thus impeded digestion, the unwholesomeness of the air in the close shop poisoned the mucous membranes, diminishing their vitality and causing them to be abnormally covered with a thick layer of mucus. Remember that, in spite of their name, it is not the business of mucous membranes tosecrete mucus; the more perfect is their condition, the more favorable are the surrounding circumstances, the less they do so. From many persons' lungs not a drachm of expectoration is thrown up in a month, and the vast surfaces of the intestines and bladder are equally innocent of even microscopic traces of mucus in the typical health we desire to experience. It is only when the presence of some material agent diminishes their vitality that the mucous membranes exhibit on their surfaces that peculiar substance whence they take their appellation. And the greater the diminution of life, the greater the secretion; a slight cold in the head will be accompanied by slight catarrh, a severe one by excessive catarrh; and the nearer the approach to death, the nearer it is, so that the death rattle, or overpowering collection of mucus in the bronchi, is a popular warning that all is over. Be careful not to look upon mucous secretion as augmented life; it is in fact a partial death.

Well, the poisoning air having covered these slowly moving mucous membranes with a thick tenacious coat, the entrance of alimentary substances into the veins and absorbents was impeded, and our patient starved in the midst of plenty. So all the usual signs of starvation followed. First, hunger—by no means a constant accompaniment of chronic deprivation of food, yet sometimes present as here; then anorexia, a much more frequent phenomenon; then paleness, languor, weariness, and pain in the stomach; then anasarca, and, in short, the other more marked symptoms of anæmia.

You may observe that the loss in those constituents of the body, which are of a nitrogenous chemical composition, is more marked than that in the hydrocarbonaceous fat. The reason is, partly, that the destruction of adipose vesicles is somewhat concealed by the saturation of the tissue with serum, which gives it a false plumpness—partly, that fat, being absorbable without much, if any, alteration, is easier

taken up than fibrin or albumen which require a chemical solution before they can be absorbed. So that though starved, our patient looks but little emaciated.

All that I have said before, of course has for its end the treatment. My aim in anæmia is to introduce as quickly as I can the largest possible amount of: 1, nitrogenous food; 2, iron; 3, chlorine. When I say "introduce" I do not mean "throw in," or get swallowed, but assimilated in the system.

As regards the first, it is obvious that if I had written down ever so many "ordinary diets," a patient to whom the very sight of food was an abomination, would have gained nothing by it; she would simply have gone without. I directed, therefore, no meals at all, and no solid food, but a cup of milk with some lime-water in it, to be given as medicine every two hours, and a pint of beef-tea in small, divided doses during the day. After two days she managed an egg also daily, and after twelve days of gradual additions of this sort, you will find her on full allowance of mutton chop, porter, beef-tea and milk.

Iron is required to supply the new growth of red disks which we hope for, with their metallic constituent. You cannot get it into the system in any way so quickly as the mistura ferri composita of the London Pharmacopœia. Large doses of the more soluble salts have an action on the mucous membranes which not only prevents them being taken up, but also arrests the digestion of food. Evidence of the latter is found in loss of appetite and feverishness, and of their own rejection in the blackening of the stools much sooner than by the form I have approved of. So in spite of the elegant preparations which are constantly put before us, as recommended by their solubility, such as the chloride, acetate, citrate, phosphate and other salts of iron, I prefer the unchemical mixture. It seems as if the carbonate which is preserved from decomposition by the sugar, and the finely divided oxides diffused through the thick liquid were peculiarly easy of solution in the water saturated with salts and carbonic acid, which (and not pure water) we must remember is the solvent to be considered.

I have found that some cases which did not improve so quickly as I could wish under the above treatment, made a sudden start of improvement when to it was added the administration of chlorine in the form of warm hydrochloric acid baths. More iron is taken up—the blackening of the feces ceases, and therefore perhaps it may be that the presence of more acid in the system attracts more of the metal. But in a

few cases I tried for experiment the hydrochloric acid baths alone, and even then it was beneficial, seeming to confer muscular strength like what are commonly called tonic drugs. I cannot but think, therefore, that it supplies a distinct want in the system, that it is a directly restorative medicine in anæmia.

Nor is it difficult to make this empirical observation accord with rational pathology. In anæmia the blood is more watery than natural; the proportion is deficient, not only of organic matters, but of salts. Chloride of sodium is the most important of these, and the supply of one of the constituents of this material we may personally imagin is an aid to the renewal of life, which is the end of all medication.

Besides the above named medicines, you will see, I have ordered Pil. aloes cum myrrha, gr. iv, omni nocte sumenda. Now, do not suppose that this is ordered merely as a purgative, and that any other purgative would do as well. On the contrary, most purgatives do harm in anæmia. Gamboge, castor-oil, sulphate of magnesia, colocynth, mercury and several others, which produce serous elimination and augment secretion generally, would do harm just in proportion to their activity. It seems established by the experiment of making them as purgatives when injected into the circulation, that their soluble principles have a destructive agency over the blood; whereas the soluble alkaloid in aloes (aloine) is, in fact, a bitter tonic, and the purgative power of the drug resides in its insoluble resin.* Its action is very slightly eliminative—in moderate doses it only slightly augments the solid brown excreta of the colonic glands, and produces feces feculent in smell and of consistent form; whilst at the same time it restrains, by its bracing bitter, the formation of mucus, as you may clearly see by its action on moist piles, how it dries them up and make them smart. And by the more vigorous peristaltic action and by the solid mass passed along the gut, the already existing mucus is cleared away. Aloes, therefore, is employed strictly as a clearer of the intestinal, especially of the colonic, membrane. It is joined with myrrh, partly to divide it minutely, and make a small dose go further; and partly to get the advantage of the extra resin.

November 28. A fortnight ago I lectured about an anæmic patient. She was then showing a tendency to lose her title to the name, and now she certainly cannot claim it, and has earned our confidence in the statement that her natural hue is rosy.

* "Headland on the Action of Medicines," p. 331; and Robiquet in *Journal de Pharmacie*, April, 1856.

She leaves the Hospital to-day, having manufactured enough red disks to colour her blood throughout very sufficiently.

What amount of manufacturing industry does this show? Let us reckon. She weighs 8 stone, or 1792 ounces; of this 2-7ths, or 512 ounces is blood; and of this blood 133-1000, that is to say, 60 ounces should be red globules. Now the analyses of MM. Andral and Gavarret show that in cases of anæmia of at all a marked character (as this was), we may expect, at least, three-quarters of the red disks to disappear, so that when she came into the Hospital it may be fairly assumed that she did not possess above 15 ounces; and now I think with equal fairness she may be assumed to have got up to 45, which is conceding that she still wants a quarter of perfect health. By this reckoning she must have made 20 ounces of red blood disks; that is, the most important organic constituent of upwards of 150 ounces of blood, in a month!

Mark the power of renewal which the human body has under favorable circumstances, and learn from this not only the curability of anæmia when it is a disease, but also the facility of repairing artificial loss of blood when it is employed as a remedy. It has been the fashion lately among certain medical declaimers to paint the Physician who draws ten or twelve ounces of blood from the arm as a deadly villain, who necessarily *ex vi termini* takes away "the life," or that which cannot be replaced. Not only pill-dealers and quacks have raised this outcry, but it has been joined in by some whose knowledge of physiology ought to have taught them better. It ought to have taught them the fallacy of the popular notion and the scientific argument by which to refute it. You will clearly perceive from the calculations through which I have taken you, that by proper management no loss is so easily repaired, and that if he saves his patient two nights' sleeplessness or pain, the price of a venesection is well spent.

Only note this, that *if the loss is to be repaired, the means of repair must be given.* When I bleed, you will observe that I take down the diet card and accommodate it to the circumstances, being very careful that the patient has the wherewithal to replace the globules I am detracting. I supply with one hand what I am taking away with the other. I begin to cure the artificial anæmia, which I feel myself called upon to produce, at the same time that I am producing it. "Blowing hot and cold," you will say. Precisely so—that is what I intend. I blow cold with my bleeding, not for the sake of blowing cold, but because it is the inevitable accompaniment of the remedy.

I employ the remedy not to produce anæmia, but for other quite different purposes which I think are worth the cost. And I blow hot to compensate as well as I can for the evil I think it desirable to do, on the principle

"Necesse est facere sumptum, qui quærit lucrum."

I do believe the sad effects of the excessive venesection of our fathers, which, with justice, have been thrown in the teeth of the Medical Profession, was due quite as much to starvation as to the bleeding. I have a most vivid and painful recollection of seeing, when I was a student in Paris, M. Chomel and others treating pneumonia. I could not at first understand why in France so much more marked, and, in my opinion, so much more deleterious, effects were produced by the venesection than in England. At that period we had at home ample opportunities of seeing blood-letting practised; but I never saw such prostration produced by it at St. George's as I did at the Hotel Dien. Then I noticed that the order for "*Saignee*" was accompanied by "*Diete absolue.*" I almost doubted my knowledge of French, and was obliged to ask several of the bystanders before I could believe that this meant an *utter deprivation of all food!* There was an instantaneous explanation of the comparative toughness of my countrymen; for never in our worst days did we carry the Sangrado practice so far as that. We did not give food enough, perhaps, but we never commanded that it should be intentionally kept out of our patient's way.

The bad practice of starving and bleeding at the same time, took its rise from the errors of Allopathy. In this system a disease is an enemy to be overcome—a something *to be combated by* an agent which is as opposite to it as possible. Bleeding was found by experience to be useful in certain morbid states; therefore it was useful in virtue of its opposite effects. Anæmia and depression of life, are the most constant effects of bleeding; therefore anæmia and depression are the benefactors to be sought for, and whatever aids bloodletting in producing anæmia and depression, is a good companion to it. It is unnecessary to say, that of course starvation was the first agent thought of, adopted *à l'outrance* by the logical French, and with more hesitation by our fortunately illogical countrymen. The abuse has brought about a reaction; and that treatment which was considered at one time so specific that its gravest faults were viewed as virtues, now runs a risk of being denied *all* virtue because of its avoidable faults.—*Med. Times and Gazette, Jan.* 11, 1862.

EMPLOYMENT OF NITRIC ACID AND OPIUM

FOR THE TREATMENT OF THE AUTUMNAL FORMS OF DIARRHŒA AND DYSENTERY.

By PATRICK J. HYNES, M. D., Nottingham.

The periodical recurrence of these well-known visitants is so certain as to become almost "as familiar as household words;" in fact, to such an extent is this the case, that medical men in extensive practice, enjoying, as it were, an interval of comparative repose during the summer months, from the fatigue consequent upon their attention to the host of diseases of the pulmonary organs inevitable in the cold and dampness of our climate, buckle on their armor to combat, each in his own peculiar fashion, with an enemy which is, if we may judge from the present rate of mortality in the metropolis, (*vide* the Registrar General's "Return" of the 17th inst.,) of an equally formidable character.

I am not going to write an elaborte article upon the above diseases, since the numerous treatises that abound describe the various stages and symptoms of these complaints; but my object is to bring *more prominently* forward a remedy, which, although it is by no means a new one, still I think is not generally employed; and I am bold enough to hope that its more extensive use in the hands of the medical gentlemen of the metropolis would have the effect of mitigating much of the present rate of mortality. About ten year since diarrhœa and dysentery prevailed rather extensively in this locality, and emboldened by the successful treatment of these diseases from the remedy I was in the habit of employing, I ventured to bring it, through the medium of the public journals, into notice, and since that time I have been repeatedly assured by many gentlemen who adopted it that my opinion of its efficacy has been by no means exaggerated. I believe I am indebted to the works of Dr. Abercrombie, "On Diseases of the abdominal Viscera," for the formula I am in the habit of employing; but as I write from memory, and have not an

opportunity of confirming my opinion on this point by a direct reference to that excellent work, I do not wish to deprive any other author of whatever merit may be found to attach to its introduction as a remedy for those diseases.

I may observe that during the last four or five weeks diarrhœa has been very prevalent in this locality, and I do not overstate when I assert that I have used it in more than a hundred cases already, and always with almost instantaneous benefit. The formula that I generally employ is as follows: Compound infusion of gentian, eight ounces; tincture of opium, a drachm to a drachm and a half; nitric acid, twenty minims; one ounce to be taken after every liquid stool or painful alvine evacuation. A mustard plaster applied to the epigastrium, and drinking sparingly of ice-cold mint-tea, relieve the sickness and thirst that frequently accompany the severer form of these diseases. I have found the remedy equally beneficial in some rather intractable form of dysentery. I would strongly urge upon gentlemen, who meet with dysenteric cases, to give it a trial, as I feel satisfied they will find it a very powerful curative agent in their hands.

In an old number of the *Medical and Physical Journal*, from which I several years since made an extract, I find the following from a Mr. Hope, of Chatam, He says:

"The first occasion of its use was remarkable. A young man of sobriety and temperance, had suffered long with dysentery, and had been attended by a friend of mine for some time, who recommended those remedies that high authority and experience pointed out for relief; but finding no advantage, he sent for me, expecting more might be done. Nothing, however, recommended was successful, and, as I could but go over the same ground, no prospect of relief appeared; indeed his death was daily expected. At this time a woman who lived with him was attacked with dysentery, with extreme thirst. An acid occurred to me; but, fearing that it might produce unpleasant effects, opium was added:—Nitric acid, two drachms; opium, two grains; water, two ounces; a spoonful to be taken in any vehicle three or four times daily. The effect produced was so great that my dying patient, unknown to me, begged to partake with her, and when I saw him next morning, which to my great surprise was with a cheerful countenance, he told me if ever I had a patient ill with his complaint, I should never fail to send the drops I had sent for the woman, for they had relieved his complaint at the first dose, and he was sure he should mend now, for they had saved his life this time.

This was the only medicine he took, and in a few days he was able to walk about his room. In a third case I tried the acid without the opium, but it did not succeed. I then united them and it effected immediate relief. I was still unwilling to persuade myself into a belief of its being a specific remedy, until a case of so extraordinary a nature occurred as compelled me to decide unequivocally in its favor. A young lad, sixteen years of age, fell over a dredging-boat into the water, in the month of July last. Indisposition succeeded, but to what degree I could not determine, as another practitioner was at first called in to his assistance. This was near a month after the accident. The remedies I applied failed in their efficacy. His friends, dispairing of relief, requested me not to trouble myself to attend him any more (they lived six miles from me) saying he must be left to his fate, being assured a day or two more would finish the scene. At this time I recommended the anodyne, and with great difficulty it was that they could be persuaded to give it a trial. Twenty-four hours had not elapsed before he began to find relief, so that in four hours he let off the remedy. The disease returned; reapplication of the drops again removed it, and in a very short space of time, without any other medicine intervening, he became as healthy as he ever had been. The manifest advantage of the medicine was recognized by the parents; nor did they spare unjust reflections that I did not employ it before."

I am unwilling to theorize upon the *methodus medendi* of what I believe to be the principal agent in the above formula; yet I cannot help thinking that the nitric acid possesses some disinfecting agency, no less than an astringent efficacy, over autumnal diseases. "The fumes of nitric acid are believed to be efficacious," says the late Dr. Montgomery, "in destroying the effluvia of typhus and other febrile diseases." Diluted with water so as to form an assidulous drink. Dr. Duncan of Edinburgh used to employ it in the low fevers that prevailed in the suburbs of that town. But independent of its chemical action over animal effluvia, it appears to me to act as a direct astringent in all the diseases of the mucuous membrane. Thus in purulent opthalmia, what remedy is so efficacious as nitrate of silver in solution? In fact, in all mucuous discharges it is almost the sole remedy upon which the surgeon depends; and of course the nitric acid is the chief agent in this valuable therapeutic. I am in the habit of employing a formula of a nearly similar kind as a tropical application, but with double the amount of acid, in cynanche and in diptheria; and I can speak

very strongly upon its beneficial effects. In brokendown constitutions impaired by mercury, by syphilis or other irregularities, the above remedy will be found frequently valuable; and given in combination with taraxacum, it will prove very serviceable in sluggish conditions of the liver. I am in the habit of employing it with very considerable advantage in the diarrhœa of infants, and, combined with the muriated tincture of iron, in tabes mesenterica. I may further state that I have given the other acids, singly and in combination, the full benefit of a fair trial in all the above forms of diseases; and, without any prepossession or prejudice, my experience enables me to give a decided preference to the claims of the nitric acid in combination with opium, as a very superior therapeutic remedy. I have not had an opportunity of making trial of it in the the very severe forms of epidemic cholera, although I have had ample opportunities of treating that disease. I have, however, many years ago, tried extensively, *inter alia*, the plan of treatment recommended by Dr. Toulmin, of Brighton, thus anticipating his views (see the *Lancet* for Nov., p. 301), which certainly look well in print, particularly as they are eloquently, indeed elegantly, introduced; but when weighed in the balances they will be found wanting.

In conclusion I may observe, that the large mortality which these diseases bring in their train calls for all the enrative agency the profession can muster to encounter their fatality. I am vain enough to indulge the hope that more extensive employment of my suggestions may not be altogether useless; and, in the unassuming language of the Roman writer shall say—

"Si quid novisti rectius istus
Candidus imperti, si non his uteria mecum."

—*London Lancet.*

ON THE CONDITION OF THE MOUTH IN IDIOTS.

By J. LANGDON H. DOWN, London,
Physician to the Asylum for Idiots, Earlswood.

The condition of the idiot is not simply one of mental alienation. It frequently presents also grave physical deterioration; and this physical alteration is as much of idiocy as

is the low condition of mental power. In a community such as that of the Earlswood Asylum there is to be found every variety of imbecile mind. In fact, just as in the outer world, there is a graduated series from the most commonplace intellects—who are 'the hewers of wood and drawers of water'—up to the giant minds that leave their impress upon the age in which they live; so is there among an imbecile population a gradual shading in an inverse direction—from the youth who might, if he had property, become the subject of inquiry before a master in lunacy, to one who, with every means of communication with the external world, except feeling, closed, vegetates in impenetrable mist. In such a community one can perceive the grades of physical condition accompanying the mental phases; and a study of the physical anomalies becomes as interesting and important as that of the psychological state. When contemplating so large a number as that which Earlswood shelters, one is able to set some of the members aside into natural groups, by simple reference to their physical state, and to predicate from that state what will be their probable future mental improvement. There is scarcely an organ in the body but may be found gravely altered in idiots; the circulation and respiration are abnormal; the skin exhibits perturbed functions; defective innervation, lesions of motility and nutrition, are abundantly met with; the bodily conformation is often of an aberrant kind. Regard, therefore, should be paid, in all cases of diagnosis of idocy, to the physical condition as confirmatory of any opinion based on purely psychological data. It is in this way one is enabled to differentiate an idiot from a simply backward or ill-regulated child. It is from the conviction of the importance of a study of the physiological manifestations of idiocy, that I have been induced to devote no small portion of time to an investigation into the structure and functions of the various organs *seriatim* among idiots and imbeciles. I purpose in the present paper giving some of the results of my observations of the feeble-minded, in reference to the condition and conformation of their mouths. Characteristic as is this region of various transitory mental phases among the sane, does it bear the permanent impress of a state in which the mind has failed in attaining its normal condition? If so, what is the nature of the impress? Does any value attach to the conformation of the mouth as confirmatory or otherwise of a state of mental incapacity? These are some of the questions we have to solve. I may premise that these observations have been made during the past year,

without reference to any recent legal inquiry, and extend over 200 cases, which have been taken, without any special selection, from a large number. Not one on the list would, in the present condition, be able to manage his own affairs, or be legally held to be responsible. Many of them, however, are susceptible of considerable culture, are affected by the amenities of life, write letters to their friends, make small purchases, and form friendships. Several perform mechanical work with system and order. One, although possessing very little judgment, has been taught French and Latin, and reads these languages as well as ordinary schoolboys. Some few possess extraordinary memories and special aptitudes. One hundred and forty-six were males, and 54 females. Their ages ranged from 7 to 36.

Palate.—Among the 200 cases included in this inquiry, 82 possessed palates inordinately arched, and with this increased arching were noticed various abnormities. In some the palate was unsymmetrical, two sides having different degrees of concavity, or one side plane and the other concave. In 34 the palates were excessively arched, approximating to the appearance of the roof of a house, and with this extreme angularity was great narrowness. Excessive arching of the palate occurred, therefore, in 58 per cent. Excessive flattening of the palate was observed in 4 cases. In 34 cases, or 17 per cent., the palate had a very prominent antero-posterior ridge or keel corresponding to the line of approximation of the palatal bones. In 7 the plate bones did not meet, leaving a sulcus between them, the mucous membrane being, however, continuous. There was no instance of the ordinary cleft palate; and I may remark that, in an examination of nearly 600 idiots, I have failed in meeting with an example of that deformity. In several the hard palate extended but a short distance posteriorly, from defect of the palatal process of the superior maxillary bone and entire absence of the palatal process of the palate bone; and in all these cases the velum palati was unusually flaccid. In the majority of cases there was marked narrowness of the palate.

Thirty-three per cent. do not exceed 1 inch, and 62 per cent., while being more than 1 inch, do not exceed 1¼ inches; whereas the normal average has been stated to be 1½ inches. It is worthy of notice that these numbers hold no direct relation to the age or stature of the patients examined. Thus, in a youth twenty-two years of age, and 6 feet 1 inch in height, so narrow is the palate that there is only 1 2·24th of an inch

between the bicuspids, and only 10-24th of an inch between the opposite gums at their widest interval. The lowest measurements occurred in a boy and girl, the boy twelve, and the girl thirteen years of age. Neither is there a direct relation between the width of the palate and the cranial capacity; for in a microcephal whose palate was 22·24th of an inch wide, the internal canthi of the eyes were 23·24th of an inch distant from one another; while in a macrocephal whose palate was 22·24th of an inch wide, the distance between the internal canthi amounted to 2 inches.

Teeth.—The principal characteristics of the teeth in idiots are, that the period of the first dentition is delayed, the second dentition considerably postponed, and that they undergo very general and rapid decay. In many cases the anterior surface of the incisors presents a honeycombed appearance, but in no one instance have I observed those special characters which have been well shown by Mr. Hutchinson to be significant of congenital syphilis. In a large number of cases they are developed irregularly, are crowded, and the canine occupy a different plane from the other teeth—all these irregularities resulting from the imperfect development of the superior maxillary bone. In 6 cases, or 3 per cent., the upper incisors projected to such an extreme degree as to produce grave deformity. In 7 cases, the teeth of the lower jaw were in advance of those of the upper.

Tongue.—The most prevailing character noticeable in the tongue of idiots is the hypetrophy of the fungiform papillæ. Undue prominence of the papillæ was observed in 101 instances. In several there is a marked want of co-ordination in the movements of the tongue, so that the patient, although endeavoring to comply with the request, is unable to protrude it. This condition is usually associated with an absence of general co-ordinated movements, and in the improvement which is effected by treatment it is usually the most persistent derangement of motility. In 16 cases the tongue presented a soddened appearance, and exhibited deep, transverse furrows on its dorsal surface; in all these patients one is able to trace a marked physiological and psychological agreement, and so much do they resemble one another in these respects, that they might readily be taken for members of the same family. Inordinate size occurred in 12 instances, and in almost every case was associated with defective power of articulation. In 2 the tongue was unusually long; 33 were mute, 16 semi-mute. In 83 the speech was indistinct; in 62 the speech was fair. Stammering was observed in 4.

Tonsils.—One cause of the peculiar speech prevailing among idiots is the condition of the tonsils. These observations, for the most part, were made in the summer, when the tonsils were not likely to be rendered worse than their usual condition by climatic influences. In 30 instances they were injected; in 17 slightly enlarged, in 79 considerably enlarged; and in 5 so much increased in size as to interfere with deglutition and respiration.

Mucous Membrane, etc.—Besides the injection of the mucous membrane of the tonsils which has been noticed, other regions of the oral cavity are liable to this condition. The velum palati, uvula, and pillars of the pharynx were found to be thus characterized in 27 instances. The posterior wall of the pharynx was observed to be marked by considerable vascular injection in 33 cases, and in 6 the mucous membrane had assumed a granular appearance. The buccal and labial glands were generally hypertropoied, and the salivary glands were frequently enlarged. In 11 instances the sublingual gland was *greatly* enlarged. The uvala was elongated in 14 cases, bifid in 2, very short in 1, and entirely absent in 1. The lips were hypertrophied in 2. In 1 case only were the gums noticed to be swollen and tumid—a circumstance arising probably from the abundant supply of fresh vegetables with which the patients are provided.

Slavering.—The flow of saliva from the mouth is universally associated, in the popular mind, with the condition of idiocy. The slavering may vary in degree. It may occur only at periods of excitement, and at meal times, or with scarcely any intermission throughout the day, producing, in severe cases, excoriation of the chin. Among 325 cases which I have examined, I find 72, or 22 per cent., in which this habit was noticed. Of these, 28 slaver to a slight extent, 17 rather more so, and 26 in an aggravated degree. This peculiarity depends, I believe, on two or three causes—1st, the increased secretion of saliva; 2d, the deformed condition of the mouth; 3d, the want of co-ordinated movements in the muscles of the tongue; and 4th, the absence of tonicity in the labial muscles. Seeing that slavering exists in 22 per cent. of imbeciles, the question may arise—Is it confined to this section of the community? I am not prepared to say that it is never associated with mental vigor; but I believe that, excluding childhood, old age, disease of the mouth, and neural lesions, slavering is very rarely unconnected with mental imbecility. Moreover, I have examined, with reference to this question, 1000 persons who

are doing the everyday work of the world, without meeting with a single example.

Summary—We have thus seen that idiocy is not simply a cerebral lesion; that it carried with it marked physical deviations, of which I have shown conspicuous examples in the mouth; narrowed, arched, and unsymmetrical palates; tardily developed, irregular, and rapidly decaying teeth; a hyperæmic condition of the mucous membrane and glands; elongated uvulas and hypertrophied tonsils; large, enervated, and rugous tongues, deficient in co-ordinated movements and in their special function; saliva secreted ordinately, and retained incontinently. Such are some of the characteristics of a class in which mental vigor is an abeyance, which should be taken in connection with the psychological state in diagnosis, and inculcate the doctrine that the physical condition of these unfortunates should be specially sought to be ameliorated by an improvement of their physical condition.—*Abridged from Lancet.* (*Dublin Medical Press.*)

PYROPHOSPHATE OF IRON.

By JAMES R. NICHOLS.

Prof. Chapman's valuable paper upon the citro-ammonio-pyrophosphate of iron, published in the *Journal* a few weeks since, has awakened an unusual interest among physicians, and led to a large demand for the salt. Modern chemistry has given to the world many new compounds, some having names so truly formidable, that they are not a little puzzling to medical men, especially those whose chemistry was learned in the schools of a quarter of a century since.

It is not a matter of much surprise to find an excellent and venerable physician ordering *phyrotechnate* of iron, when we consider the unfamiliar name of the desired agent, and the haste to procure it, induced by the warm praise bestowed by Prof. C. Neither do we wonder at the inquiries of another, who wishes to know if the new sanitary pyrotechnic is not dangerous, or liable to spontaneous combustion, as *pyro* means fire, and phosphorous, a prominent constituent, can hardly be kept from setting one's saddlebags in a blaze unless protected by water.

It is important that names and therapeutic agents, should be precisely understood. Pyrophosphate of iron, correctly

speaking, is the white precipitate formed when a solution of iron (2 Fe, O_3, $5SO_3$) is added to another of bibastic phosphate of soda (PO_5, 2 Na O). As a dry white powder it has been to some extent sold as pyrophosphate of iron. The salt described by Prof. Chapman, and which is inquired for as pyrophosphate of iron, bears physically no resemblance to this article, and as regards chemical constitution, varies widely from it, it being only one of its constituents. The citro-ammonio-pyrophosphate of iron, as described in the *Journal*, affords scales of beautiful light-greenish color, but if a slight amount of ammonia is added to the solution, a reddish-brown color is produced, and the dried scales are made exactly to resemble those of the citrate, or tartarate of iron. A salt of this description is the market, called pyrophosphate of iron. The medicinal effects of this preparation would in no respect differ from the other, but its physical character is so unlike, that confusion and doubt are liable to arise from similar agents existing under dissimilar forms.

It will be understood that the shops afford three distinct articles—one a dry white powder, another in brilliant green scales, and still another in red scales—all of which pass under the general designation of pyrophosphate of iron. To avoid very long names, and secure uniformity of physical aspect, I would suggest that medicinal pyrophosphate of iron be regarded as the preparation obtained by dissolving the moist white precipitate, before alluded to, in an exactly neutral solution of citrate of ammonia, or soda, and which affords scales and syrup of the elegant greenish hue. There are some apparently valid reasons why soda should be introduced into the preparation rather than ammonia.

The earthy portion of bones is essentially a tribasic phosphate of lime, and the principle of blood which affords an alkaline reaction is a tribasic phosphate of soda with two eqs. of fixed base and one eq. of basic water (PO_5, 2NaO HO). The chief salt in the juice of flesh and in the gastric juice, is a tribasic phosphate of potash, with one eq. of fixed base and two eqs. of basic water (PO_5, KO, 2HO. No one can doubt that each of these peculiar phosphates has important functions to perform in the animal economy, and their presence in abnormal quantities may be fruitful sources of disease. Soda performs a much more important part than potassa, inasmuch as it is found directly in the circulation. The principal salt in the blood to which it owes its peculiar power of absorbing and giving off carbonic acid, is a tribasic phosphate of soda, as

has been stated, and therefore it may be as intimately connected with vitality and health, as iron. To what extent vital force is capable of breaking up complex salts directly administered, and forming new ones adapted to the wants of the system, is a point upon which we need information. We also need more light as regards chemical agents, or combinations best adapted to effect certain morbid conditions of the animal economy. The phosphatic salts certainly play a very important part in the chemistry of life, and that with the soda base is particularly prominent. Hence it is inferred, that when we desire to introduce a salt of phosphoric acid as a remedial agent, and it becomes necessary to associate therewith an alkali, soda or potash should be selected in preference to ammonia, as this latter is not found in the blood or tissues, and is only formed from their decomposition and decay.

In the phosphate iron salt under consideration, it would seem preferable to use soda with the citric acid in rendering the same soluable. Citrate of soda dissolves the freshly-precipitated pyrophosphate of iron as readily as the ammonia salt, and the resultant scales and syrup are equally as beautiful and tasteless.

The pyrophosphate of iron under consideration, is a sesquioxide salt, and what degree of ready assimilability it may possess, is not as yet, I presume, fully ascertained. Doubtless, it is a valuable agent, but how much more than the numerous other sesquioxide combinations of the metal, can only be learned from extensive trial. Its freedom from unpleasant taste is certainly in its favor.

When it is desirable to administer phosphorous compounds with iron, I am inclined to think a lower oxy-salt of the element, with one of the iron containing also a less amount of oxygen, is to be preferred. The hypophosphite of the protoxide of iron, in the form of syrup, is a stable compound, and possesses the least possible ferruginous taste. In the limited trials to which it has been subjected, it has proved to be remarkably prompt in its tonic and chalybeate influence, and indeed we should expect this, from what we positively know of the behavior of mineral salts under the influence of vital chemical action.

The pyrophosphate of iron, as Prof. C. suggests, is best given in the form of a thin syrup, which may be prepared from the original solution, as made ready for drying. That containing eight grains of the anhydrous, or fifteen of the combined salt, to the fluid ounce, given in teaspoonful doses, affords about the requisite amount for adults.—*Boston Med. Journal.*

EDITORIAL AND MISCELLANEOUS.

Meeting of the State Medical Society—Postponement of the Meeting of the Am. Med. Association.—The attention of the profession is directed to the subjoined notices which have been enclosed to us for publication.

At the last meeting of the State Medical Society it was made the duty of the Secretary to call the meeting for this year in the month of May, contingent upon the assembling of the American Association at that time, otherwise to call it in the month of June.

The Committee of Arrangements of the National Association, having (as we conceive wisely) concluded that the causes which led the postponement of the annual meeting last year still operated, and with perhaps greater force, and therefore having determined upon still another postponement, the result is that the State Society will not meet until the time announced below.

The importance of bearing these changes in mind will be apparent to all who intend coming up to the annual gathering, which, it is to be anticipated, will exceed, both in interest and numbers, any previous anniversary of the Society.

Meanwhile we must be permitted to congratulate the members of the American organization that their Committee of Arrangements have not been tempted into a premature rally of the Association by the ill-advised urgency of a few individuals who seem even yet wholly unaware of the terrible

struggle for mere existence in which the nation is now engaged. It is enough to say wiser councils have prevailed.

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

We, the undersigned, Committee of Arrangements of the American Medical Association, after free consultation with officers and members in each important section of the country accessible to the Committee, feel constrained to give notice to the Profession, that the regular annual meeting of the Association is further postponed until the first Tuesday in June, 1863.

Chicago, March 20th, 1862.

N. S. Davis,
J. Bloodgood,
J. W. Freer,
DeLaskie Miller,
H. W. Jones,
E. Andrews,
Thos. Bevan,
} Committee.

ELEVENTH ANNUAL MEETING OF THE ILLINOIS STATE MEDICAL SOCIETY.

The regular annual meeting of the Illinois State Medical Society will be held in Jacksonville, commencing on the first Tuesday in June, 1862. A full attendance of delegates and members from all parts of the State is very desirable.

Chicago, March 3rd, 1862.

N. S. Davis, Permanent Secretary.

An Error Corrected.—The *Lancet and Observer* errs in its statement that Rush Medical College did not continue its last session through the usual period. It falls into this error, possibly, from the fact that the last session *commenced* two weeks earlier, and of course closed two weeks earlier than previously had been the custom. The session continued uninterruptedly from the first day to the very last day of the usual period, and, we are happy to inform our contemporary, was attended by more than its usual average of students. Of which latter fact the forthcoming catalogue and announcement will be full evidence.

The change in the time of commencing the annual session was made at the solicitation of a large number of students, and has been found practically so convenient, that it will probably become permanent.

So far from abbreviating the lecture season, or wishing to do so, Rush Medical College stands ready to coincide in any well devised or general movement for increasing the length of terms. But be it observed, it does not believe in taking out of the body what is put on the extremities—spreading the same number of lectures over a greater space of time, thus encouraging indolence both in the teacher and the pupil. From that sort of reform it begs to be excused.

Pyro-Phosphate of Iron.—Several correspondents inquire where this preparation (an article concerning the merits of which was contained in the last number of this journal) can be procured of a reliable character. It may be that other parties have it, but we have been in the habit of ordering it from Mr. E. H. Sargent, corner of State and Randolph streets, in this city, who puts it up in most excellent style.

The article is an elegant one, and one which cannot fail to become popular among those who have an eye to æsthetics in medicine. It avoids the nauseous inky taste of the chalybeates generally, is agreeable to sight, taste and smell, and usually acceptable to the stomach. We say usually, for in a few instances it has seemed to provoke colicky pains and diarrhœa when given in full doses. This has once or twice necessitated the exhibition of aromatics, etc., and even temporary discontinuance of the medicine. Whether the phosphorus in its composition has the remarkable efficiency asserted for it by Dr. Chapman, we are inclined to doubt; but its chemical characteristics certainly suggest it for trial in many peculiarly intractable cases.

Penetrating Wound of the Lung.—Prof. E. C. Lane, in the *San Francisco Medical Press*, records a very interesting case

of punctrred wound of the lung, the knife entering between the second and third rib, near the sternum on the left side. The rush of air in and out of the wound, and the gush of blood, are graphically portrayed. The successful treatment involved as its striking characteristic the careful removal of the extravasated blood from the pleural cavity *immediately*, and not as generally directed, closing up the wound and allowing it to remain till some days afterwards. He observes: "The rapid convalescence of the case, the escape from pulmonary inflammation, together with the avoidance of empyema—which would have been the event of the opposite course of treatment —would induce me to evacute, *instanter*, blood from the thoracic cavity, in all cases of wounds penetrating it, and accompanied by internal hemorrhage.

Germain to this point, we recall attention to the interesting cases of gunshot wounds of the lungs reported in this journal in February, 1861, by Dr. Clapp, now of California.

A Treatise on Gunshot Wounds.—By T. Longmore, Esq., Deputy Inspector-General of Hospitals; Professor of Military Surgery at Fort Pitt, Chatham. Philadelphia: J. B. Lippincott & Co., 1862. 132 pp.

This little *brochure* is one of the books which sum up in brief the results of extended and diffuse observations. Without any especial claim to novelty, it affords a valuable, clear and concise discussion of gunshot wounds in general, as modified in effect by the peculiarities of particular parts and also practical directions for treatment.

It will be found useful not only to the Army Surgeon, for which it appears to be specially designed, but also for students and practitioners in civil life.

Braithwaite's Retrospect.—Part the Forty-Fourth.—Notice of the appearance of this valuable reprint was accidentally omitted in the last number of the JOURNAL. It fully sustains the previous high character of the series, and will be found rich in practical information. All the booksellers have it.

Anatomy, Descriptive and Surgical.—By Henry Gray, F. R. S., F. R. C. S. and Lecturer on Anatomy at St. George's Hospital Medical School. With Drawings by H. V. Carter, M. D., Demonstrator, etc. Dissections jointly by the author and Dr. Carter. Second American from the revised and enlarged London Edition, with 395 engravings on wood. Philadelphia: Blanchard & Lea, 1862. 816 pp.

With the previous edition of this magnificent work every anatomist is familiar. We are certain that we do injustice to no author when we say that it is pre-eminently *the* anatomical text-book. The general outline verges upon the absolutely perfect; particular descriptions are minute, lucid and exact, and the style throughout a classical model.

The engravings will arrest the attention of the most superficial observer for their boldness and strength; and they will command the admiration of the most critical for their perfection and beauty.

They have one peculiarity which conduces materially to convenience and perspicuity. The name of the part or point of interest is depicted immediately in its place on the engraving in such a manner, that while nothing is detracted from the perfection of the engraving, the student is not compelled to wade through foot-lines and a chaos of numbers or letters to find exactly the nomenclature of the parts.

Throughout the work, special attention is given to the surgical relations of every part, to such an extent, indeed, that the work is made indispensable to the practical surgeon. By the aid of the complete index, and the mode of indicating parts on the engravings, not a moment's time need be lost in referring to the anatomical and surgical relations to be studied. A brief account of the microscopical anatomy of some of the tissues and the various organs is also introduced.

In the present edition, inaccuracies have been corrected, "much additional matter has been added to the text, and several new illustrations executed with great care and fidelity by Dr. Westmacott, have been inserted."

The American edition has received the careful and judicious

supervision of Dr. Richard J. Dunghican, and the name of Blanchard & Lea is sufficient guarantee of the typographical excellence of the volume. For sale by W. B. Keen & Co. and by S. C. Griggs & Co., Lake street.

Characteristics of Parisian Notabilities.—The most attractive lecturer at the college is certainly Malgaigne on operations and apparatuses. The speciality is admirably fitted for him as permitting of digressions into witticisms of the most bitter nature against inventors in general, and old Charriere in particular, who, by the way, is generally alongside. He is certainly the grand leveller. Few operations or instruments are better than blunders, his own excepted, and these invectives are uttered so eloquently, so beautifully sarcastic, that his hearers fail not to evince their appreciation in applause frequent and sincere. Many of the audience are non-professional, mere listeners indeed, who have no interest other than to hear the irony and watch the grimaces of this most peculiar speaker. He has such a crabbed appearance, and the contortion of his features as he is upon the point of saying something severe is so singular and unnatural, as to be comparable only to face of a snarling dog. A student ignorant of the language can tell when he bites. As a debater he is powerful and fearless, and in the meetings of the Academy of Medicine invariably puts down his antagonist.

Denonvilliers is perhaps the next most popular as a lecturer, and it must be by reason of his very oppositeness to his colleague, for no two men were ever more different than Denonvilliers and Malgaigne.

Jarjarvay makes the hour pass pleasantly, notwithstanding the difficulty of his subject.

From among the clinical professors Trousseau must be chosen as the true orator. Indeed this ought to be his forte, for in early life, besides being a legislator, he was professor of rhetoric. Few men are more admirable for both talent and exterior looks. In manner and appearance he reminds me greatly of Dr. Willard Parker.

Jobert de Lamballe is surgeon to the Emperor, and is besides as unfeeling as a Maisonneuve. He seems never pleased, for ever growling at his aids, doing everything but kicking them, and patients in his wards are scolded at like dogs.

What a contrast is the gentle Nelaton! All mildness with

his assistants, and showing extreme sympathy for the sick. The largest *clientele* lies between him and Trousseau. I am told that Nelaton's income is about 200,000 francs.

Velpeau has been now so long walking the wards, and so long famous, that to foreigners in particular he has become a perfect curiosity. He is about the first one that the American student just arrived asks to be shown to. In a recent visit to Tours I understood that his studies were begun there, but so long ago that the oldest doctor did not remember. He has more internes and externes under his care than any other, especially of Spaniards. The crowd after him is so large that it is nearly impossible to see more than every fourth bed. He is familiar and kind to every one.

Piorry is called a great oddity with two great hobbies—the making of new sounds by his fingers, and new names with his tongue. For those who have faith to the very finest point in percussion he must be their king. As an instance of his perfection I may mention that I have known him to percuss the spleen some few hours after giving quinine, and detecting a diminution of its volume! He uses simply the pleximeter, to which he has given some new name which I forget. While percussing he never listens, at least scarcely ever. The *tactus eruditus* is upon his fingers, so that the slightest abnormality is at once perceived by them, and simultaneously, uninterruptedly, he announces to his followers the precise condition of the organ in question. His class is only moderate in size, and mostly made up of foreigners. I heard Maisonneuve once say that Piorry could detect and describe a clot beneath the cranium.

Bouillaud is no doubt a little vain of his resemblance to the first Napoleon. For my part I could never see it; but one thing is pretty certain, that is, although a physician he has spilled more blood than any surgeon in Paris. What does Bouillaud do? Bouillaud bleeds.—*Corr. Am. Med. Times.*

Sore Nipples.—Prof. Barker, in the *Medical Times*, without delaying to comment on the great variety of remedies proposed by the standard authors, makes a concise statement of what his experience has led him to believe the best method of treatment in each case.

Erosion,—Or when it is more extensive it is called *excoriation* of the nipple, is a superficial wound of the skin, in which

the derm is laid bare by the removal of the epidermis by nursing. Sometimes it produces little vesicles, one or more, on the apex or sides of the nipple, which are broken by sucking, and the scales from which are again pulled off, and we have what the nurses call the *chapped* nipples. From this results entire destruction of the derm, and we then have *ulceration* of the nipple. The surface is then of a bright red color, granulated, and frequently swollen, and groved in fissures. When such a condition exists, you can readily understand that the act of nursing produces intolerable suffering, to such a degree that patients have often told me that the pains of labor could be more easily endured. I have sometimes seen half of the nipple bevelled off by this ulcerative process. But if you see the case sufficiently early, and treat it properly, and the nurse and patient scrupulously follow your directions, the ulcerative process may always be avoided. In the early stage of erosion and excoriation, direct that as soon as the child leaves the nipple it should be very carefully wiped dry, with a soft piece of linen, and then painted over by means of a camel hair brush, with the tinc. benzoin co. Brush it over three or four times, allowing an interval of a minute or two for each application to dry. This forms a kind of artificial cuticle, which should be renewed each time that the child nurses, and if it is possible to make the child nurse through it, direct that a nipple shield should always be used. Very good ones are now kept by our apothecaries generally, but in selecting one, be careful that its base is sufficiently large and elastic, so as not to strangulate the nipple. The first application of the benzoin produces a little smarting and burning pain for a moment or two, but its renewal is not usually painful. If the ulcerative process has commenced, stop nursing from the nipple. There is no other way, and the more promptly you decide to do this, the more speedily will the nipple be cured, and very frequently it is not necessary to suspend the nursing more than twenty-four or thirty-six hours. Empty the breasts by gentle rubbing only. This can only be done by tact and perseverance, although it sometimes requires ten minutes to get the first few drops. Then paint over the ulcerated surface, twice a day, with a solution of nitrate of silver, gr. x., ℥ j. of distilled water, and keep the surface covered with carb. magnesia, or what I think is still better, calomel.

Tissue or Crack—At the base of the nipple occasions intense suffering, often I have thought quite as severe as the form of sore nipple that I have just described. It sometimes

is so small that it can only be seen in a good light by bending the nipple over to the oppsite side. To cure it pencil the bottom of the fissure with a very fine point of the solid stick of nitrate of silver, and then cover it with collodion, that is the solution of gun cotton in sulphuric ether. If the fissure is not associated with the form of sore nipple that I have before described, or with inflammation of the nipple, that I am about to speak of, it is by these means cured speedily.

Inflammation of the Nipple is sometimes a cause and in other cases a consequence of the preceding conditions, and the inflammation frequently extends to the areola. The nipple is conical, red, swollen, and excessively painful. Apply a soft bread and milk poultice for a few hours, and then keep it covered with one or two thicknesses of linen, wet in a weak solution of leod water, as for example:—℞. Liq. plumbi diacet. dil. ʒj.; aq. rasæ ʒiij.; M. ft. lotio. After the inflammation is so far subdued that nursing can be borne without much pain, you will do well to substitute for the lead water the following:—℞. Aq. rosæ, glycerin., aa, ʒij.; acidi tannic. ʒij.; M. ft. lotio. I have described each of the above forms of sore nipples as distinct affections, but you should not forget that they may be associated, either two forms or the three together, when the treatment must be modified or combined according to the special indications.

Eczema of the Nipple—Is, according to my experience, quite rarely met with, as I can only recollect six cases that I have seen. The first was at M. Velpeau's wards, at La Charite, in Paris. I have seen two cases in our lying-in wards, and three in consultation practice. Velpeau's prescription, which he said he had never known to fail, was the following ointment:—℞. Ung. aq. rosæ ʒj.; mag. carb. ℈ij.; hydrarg. chlor. nitr. ʒj. M. You should direct the apothecary to rub it up very thoroughly, or it will be lumpy. This ointment cured in a few days the cases we had in this hospital, but I am not able to say how successful it was in other cases.

Hydrophobia.—Dr. M. C. Hazen, of Haddam, Ct., reports in the *Boston Med. Jour.* a case of hydrophobia referred to the bite of a dog *eleven years previous.* The dog lived two years after inflicting the wound, and then died from a fall, breaking his neck. The same writer refers to a case in an adjoining town, where a man with hydrophobia (terminating

fatally) bit two persons who were attending him, both of whom died of well-marked hydrophobia, the last fifteen years after.

Dr. Hazen's case had a remarkable inclination to snap and bite those around.

The treatment essentially consisted in moderately full doses of Morphiæ and Stramonium, a free mercurial purge the third day, a blister on the calf of the leg; the sixth day, small doses of Quina and Ar. Sulph. Acid. The patient recovered.

We are inclined to the opinion that the case was not one of hydrophobia. The details of convulsive action, inclination to bite, &c., so far as given, do not indicate more than the presence of some centric or excentric cause of irritation of the nervous system, which, unfortunately, was not discovered, because of the preconceived idea of hydrophobia, which had taken possession of the attendant's mind so thoroughly as to exclude search after the real lesion. The successful result of a case, or even appropriate treatment, does not by any means necessarily confirm a diagnosis. Particular groups of symptoms being, for convenience, adopted as designating particular diseases, it happens unluckily that sometimes diseases come to be looked upon as positive entities, as was evidently the fact in this case of so-called "hydrophobia."

Hydrophobia is a good deal like "worms" in popular pathology—it covers a great variety of affections. Real cases of hydrophobia are as rare as tetanus from any single cause; the pathological group of symptoms just about as common as tetanus from the variety of causes, idiopathic (undiscovered?) or traumatic, which may give rise to it.

Of course the "barking and snapping and biting" every modern pathologist understands the meaning of.

Uterine Hæmorrhage.—Dr. Conkling (Med. Times) speaks highly of the introduction into the *os* of Liq. Ferri Per Sulph. by means of sponge or a strip of muslin, or by direct injection. The vagina should then be plugged thoroughly in the usual manner.

Delirium Tremens.—Dr. Lewis A. Sayre, in the same paper, reports successful use of the iced bath in the treatment of delirium tremens. The suggestion was made to him by Dr. Bauer, of Brooklyn. The case was immediately under the care of Dr. Orsamus Smith, of Blackwell's Island Hospital. The powerful sedative influence of the cold was well illustrated.

Pirogoff's Operation.—B. Frank Palmer, the man who, *Punch* insisted, makes better artificial legs than Nature does by her previously supposed inimitable processes, objects to Pirogoff's operation, as leaving the extremity little fitted for serviceable use, and at the same time badly adapted for supplying artificial compensation. He suggests for the surgeons' consideration in amputating the *leg* and *thigh* the following places of election:

1st place of election. The *lower third or fourth of the leg.* Flap operation. Remove the malleoli fully *always.*

2d. The lowest point possible between the first place of election and the upper third at which a good *flap* can be made.

3d. Immediately below the tuberosity of the fibula, if not practicable to save four inches below the patella, *with full use of joint.*

4th. The lower third of the thigh—*ten inches from perineum.* Always fully remove the condyles of the femur. Flap operation.

5th. *The utmost length possible,* if necessary to amputate above the fourth place of election. Flap operation.

These points, he states, have the approbation of the most eminent surgeons in this country and Europe.

Quinine as a Prophylactic.—A very sensible correspondent of the *Reporter* sustains views which we have heretofore advanced on this point as follows:

It has been a question with me if this Commission has not done more hurt than good, especially in the recommendation of quinine as a prophylactic for intermittents. I must question the propriety of giving quinine in a perfect state of health for the purpose of preventing an ill effect from malaria. Those cases that have been reported as being benefitted by the supposed prophylactic power of quinine, if theory or reason is good for anything, no doubt in such cases there existed an incipient form of disease—at least, were under the influence of malarial poison.

It was my privilege to spend a few weeks in our army—in Virginia, on Arlington Heights—last autumn. A number of cases of the form of disease that prevailed at that time came under my observation. Almost every case assumed, at first, an intermittent type of fever, attended with a congestive form of diarrhœa. I observed in the treatment quinine and opium were given liberally in combination—in many of these cases the fever assumed a continued form, with increased enteric symptoms. In this state of the disease they were removed from the army hospital tents to one of the hospitals in Washington or Georgetown, where they were treated for typhoid fever, as I was informed. A few cases were attended by myself. In all these cases I prescribed opium with hydrarg. c. creta, sinapisms over the abdomen until the tenderness upon pressure was relieved, after which quinine was used with marked benefit. One of these patients had a relapse before I left; the symptoms were much severer than in the first attack, ten days or so previous. The surgeon of the regiment remarked, in examining, at the *time of the relapse*, that it was frequently the case that his patients had a relapse, and *that* this was one of the ordinary type, and that he would now have a course of typhoid fever, and there could be no escape. I prescribed for him, as at first, large doses of opium combined with mercurial chalk, aided with counter-irritants over the abdomen, until the congestive form of disease was subdued, after thirty-six to forty-eight hours' duration. Quinine was then administered with the happiest effects. How much this Sanitary Report, in favor of the prophylactic effects of quinine, has contributed to the *doubtful* practice, to say the least, is not known. One thing is certain, so far as I could learn: our troops never had quinine given them unless on the sick list. The Sanitary Report would seem to recommend it for the well and healthy. I am fully convinced that a mild form of disease was converted into an acute form by the too early administration of quinine, after which they were treated at one of the hospitals in Washington or Georgetown for *typhoid fever*—a *polite and learned prognosis*. A quinine treatment was followed up, and *some* did live through it. How much the report emenating from the Sanitary Committee led to the abuse of this remedy, of course, is mere presumption to say. The duty of this Sanitary Commission falls naturally, it seems to the writer, on the Brigade Surgeon and the Commissary; if so, why not abolish the whole system as worse than useless?

W. D. S.